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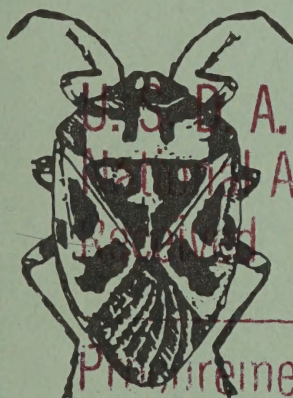
January 1978

# Cooperative PLANT PEST REPORT

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This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

*Cooperative Plant Pest Report* supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

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## COOPERATIVE PLANT PEST REPORT

### HIGHLIGHTS

#### Detection

● Four ARMORED SCALES in Puerto Rico are new to North America and to the United States. (p. 11).

New State records include an ARMORED SCALE and 2 MEALYBUGS in Alabama (p. 6) and a CARABID BEETLE in Hawaii (p. 8). New records for Puerto Rico include 3 ARMORED SCALES and a MEALYBUG (p. 11).

For new county and island records, see pages 9-10.

#### Special Reports

Identification of Megaselia agarici (Lintner) and Megaselia halterata (Wood) (Diptera: Phoridae) (p. 14-16)

Pest Detection in the United States - 1977.

● There were 17 records new to the United States and 81 records new to the States and Puerto Rico. (p. 17-24).

State Survey Coordinators. (p. 25-28)

Cooperative Survey Entomologists. (p. 29-31).

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## SPECIAL PESTS OF REGIONAL SIGNIFICANCE

### INSECTS

BEET LEAFHOPPER (*Circulifer tenellus*) - CALIFORNIA - Kern County--averaged 4 per sweep on Russian thistle week ending December 23, 1977; treatment continued. Drought dried remaining roadside weed hosts and limited annual germination in southern San Joaquin Valley. Southern San Joaquin Valley--rain favored population development week ending January 20, 1978. (Tyson).

CORN EARWORM (*Heliothis zea*) - CALIFORNIA - Riverside County--larvae of this species and POTATO TUBERWORM (*Phthorimaea operculella*) infested fruit on 60% of eggplants in 40-acre (16.0 ha) field at Thermal week ending December 30, 1977. Damage caused internal decay of fruit. (Arias, Sicre).

GREENBUG (*Schizaphis graminum*) - NEW MEXICO - Chaves County--ranged 5-10 per linear ft (30.5 cm) of row in small grain field at Hagerman and 3-10 at Lake Arthur week ending January 13, 1978. Eddy County--averaged 150-200 per linear ft of row in small grain fields near Atoka week of January 20. Lighter in grazed fields. (Riddle). TEXAS - Counts per row ft of small grains by county: Archer (70-115 per row ft in spots), Baylor (70-115 per row ft in spots), Fisher, Jones, Motley, Stonewall, Wichita (70-155 per row ft in spots), and Wilbarger--5-50 by December 19, 1977; Fisher, Foard, Hardeman, Jones and Wichita--51-125 (some fields) by January 3, 1978; Archer and Baylor--5-75, Foard, Hardeman, Jones, and Wilbarger--5-120, and Fisher--1-10 (drought stressed wheat) by January 9. (Boring). OKLAHOMA - Counts per row ft of wheat by county: Dewey--ranged 20-350 week ending December 22, 1977; Mayes--averaged 3 week ending December 30; Washita--ranged up to 200 in scattered fields, Noble--ranged 14-92, Payne--averaged 40 by January 6, 1978; Major--light to heavy on wheat, Texas--none on wheat and barley, Kay, Grant, and Noble--ranged 0-30 in several wheat fields by January 13. (Arnold). KANSAS - Harper County--averages ranged 15-60 per row ft in 5 wheat (10-17 tillers) fields near Bluff City, January 3, 1978. (Salsbury).

### SMALL GRAINS

### DISEASES

WHEAT LEAF RUST (*Puccinia recondita*) - OKLAHOMA - Blaine County--very heavy on wheat sample week ending December 30, 1977. (Nowlin et al.).

### INSECTS

ENGLISH GRAIN APHID (*Macrosiphum avenae*) - OKLAHOMA - Mayes County--averaged 3 per row ft (30.5 cm) in small grains week ending December 30, 1977. (Arnold). MISSISSIPPI - Noxubee and Clay Counties--light, averaged 0.1 per sq ft (.09 sq m) on winter wheat week ending January 5, 1978. (Anderson).

AN APHID (*Rhopalosiphum padi*) - TEXAS - Counts per row ft (30.5 cm) of small grains by county: Archer and Baylor--1-2, Foard and Wilbarger--up to 17 by December 19, 1977. January 3, 1978: Foard and Hardeman--2-16 and Archer and Baylor--0-10. January 9: Foard and Wilbarger--5-63. (Boring). OKLAHOMA - Counts per row ft by county: Mayes--averaged 16 in small grains week ending December 30, 1977. January 6, 1978: Noble--ranged 2-10 in wheat and Payne--averaged 20. Week ending January 13: Texas--light on wheat and barley. (Arnold).

WINTER GRAIN MITE (*Pentthaleus major*) - OKLAHOMA - Counts per row ft (30.5 cm) by county January 6, 1978: Carter, Love, and Murray--heavy in scattered fields of wheat (some damage occurred and some fields treated), Washita--ranged up to 115, and Noble--0-10. (Arnold).



BROWN WHEAT MITE (Petrobia latens) - OKLAHOMA - Dewey County--ranged 0-10 per row ft (30.5 cm) in wheat December 22, 1977. (Arnold).

WHEAT CURL MITE (Eriophyes tulipae) - KANSAS - Harper County--heavy in unfolded leaves of volunteer wheat in 1 field January 3, 1978. (Salsbury).

## **TURF, PASTURES, RANGELAND**

### INSECTS

GREEN JUNE BEETLE (Cotinis nitida) - FLORIDA - Madison County--larvae caused uniformly heavy damage to 35 acres (14.0 ha) and spotty damage to 25 acres (10.0 ha) of 60-acre (24.0 ha) pasture week of December 20, 1977. Pasture consisted of Bahiagrass overseeded with winter rye forage grass, about 9 miles (14.4 km) south of Madison. (Koehler)

## **FORAGE LEGUMES**

### INSECTS

ALFALFA WEEVIL (Hypera postica) - FLORIDA - Alachua County--adults 2 and larvae 7 in 100 sweeps of alfalfa at Gainesville January 18, 1978. (Mead). OKLAHOMA - Egg averages per sq ft (.09 sq m) of alfalfa by county December 12, 1977: Payne--33. December 15 on alfalfa: Grady--21 and Stephens--43. January 5-6 on forage legumes: Stephens--58 and Payne--21 (occasional newly hatched larva in both areas). (Arnold). MISSOURI - Eggs per sq ft by county week ending December 24: Lafayette--228, Clinton--36, and Nodaway--58. (Munson).

A MEALYBUG (Pseudococcus sorghiellus) - ALABAMA - New county record. Randolph County--taken on ornamental Lespedeza cuneata (Chinese lespedeza) at Roanoke on July 25, 1977. Collected by C.H. Ray, I. Daniels, and K. Manuel. Determined by M.L. Williams. (McQueen).

## **SOYBEANS**

### DISEASES

ANTHRACNOSE - MISSOURI - Prevalence/severity of Colletotrichum and Glomerella spp. on mature soybean plants in southeastern area by variety in order of maturity during November 1977: Clark 63--100%/5%, Cutler 71--100%/5%, Mitchell--100%/3%, Pomona--100%/6%, Columbus--100%/10%, Dare--100%/3%, York--100%/2%, Hill--100%/2%, Mack--100%/2%, Forrest--100%/3%, Essex--100%/6%, Pickett--71-100%/3%, Davis--100%/3%, and Lee 74--100%/trace. (Foudin).

SOYBEAN POD AND STEM BLIGHT (Diaporthe phaseolorum var. sojae) - MISSOURI - Prevalence on stems/ on pods of mature soybean plants by variety in order of maturity in southeastern area during November 1977: Clark 63--100%/0%, Cutler 71--100%/10%, Mitchell--100%/0%, Pomona--100%/40%, Columbus--100%/0%, Dare--100%/0%, York--90%/0%, Hill--100%/0%, Mack--100%/0%, Forrest--90%/0%, Essex--100%/0%, Pickett 71--100%/0%, Davis--100%/0%, and Lee 74--90%/0%. (Foudin).

FUSARIUM ROOT ROTS (Fusarium spp.) - MISSOURI - Prevalence/severity of root rots on mature soybean plants in southeastern area by variety in order of maturity during November 1977: Clark 63--100%/4%, Cutler 71--100%/trace, Mitchell--100%/4%, Pomona--100%/trace, Columbus--100%/trace, Dare--100%/trace, York--100%/trace, Hill--80%/trace, Mack--90%/trace,



Forrest--80%/trace, Essex--100%/3%, Pickett--100%/trace, Davis--100%/trace, and Lee 74--100%/trace. (Foudin).

CHARCOAL ROT (Macrophomina phaseolina) - MISSOURI - Prevalence/severity on mature soybean plants by variety in approximate order of maturity in southeastern area during November 1977: Clark 63--100%/12%, Cutler 71--100%/15%, Mitchell--100%/6%, Pomona--100%/10%, Columbus--100%/6%, Dare--100%/4%, York--100%/2%, Hill--100%/4%, Mack--90%/2%, Forrest--100%/3%, Essex--100%/4%, Pickett 71--100%/3%, Davis--100%/3%, and Lee 74--100%/2%. (Foudin).

SEED PURPLE STAIN (Cercospora kikuchii) - MISSOURI - Prevalence on harvested mature seed by variety in order of maturity in southeastern area during November 1977: Clark 63--0, Cutler 71--42%, Mitchell--30%, Pomona--24%, Columbus--12%, Dare--10%, York--6%, Hill--0, Mack--18%, Forrest--10%, Essex--4%, Pickett 71--2%, Davis--0, and Lee 74--0. (Foudin).

## **DECIDUOUS FRUITS AND NUTS**

### DISEASES

WINTER BLIGHT (Coryneum carpophilum) - CALIFORNIA - Butte, Yuba, and Sutter Counties--first twig infections noted in many cling peach orchards week ending January 20, 1978. (Layman).

### INSECTS

SHOT HOLE BORER (Scolytus rugulosus) - ARKANSAS - Lincoln County--heavy in peach trees week ending January 6, 1978; growers concerned. (Barnes)

## **CITRUS**

### INSECTS

TEXAS CITRUS MITE (Eutetranychus banksi) - FLORIDA - Ridge District--heavy local infestations on citrus January 5, 1978. (Townsend).

## **SMALL FRUITS**

### INSECTS

AN ARMORED SCALE (Abgrallaspis cyanophylli) - ALABAMA - New county record. Randolph County--taken on ornamental Vaccinium sp. (blueberry) at Roanoke on July 25, 1977. Collected by C.H. Ray, I. Daniels, and F. Manuel. Determined by M.L. Williams. (McQueen).

## **ORNAMENTALS**

### INSECTS

A WEEVIL (Scyphophorus acupunctatus) - FLORIDA - Baker County--adults and larvae severely infested stems of 70% of 150 Yucca plants in nursery at Baxter, December 21, 1977. (Webb).

A MEALYBUG (*Trionymus caricis*) - ALABAMA - New State record. Randolph County--taken on Andropogon sp. (broomsedge) at Wedower, July 25, 1977. Collected by C.H. Ray, I. Daniels, and K. Manuel. Determined by M.L. Williams. (McQueen).

AN ERIOCOCCID SCALE (*Eriococcus araucariae*) - FLORIDA - New county record. Palm Beach County--adults and eggs moderate on stems and leaves of Araucaria excelsa (Norfolkislandpine) tree at residence at Lake Worth on January 16, 1978. Collected by J.E. Bennett. Determined by A.B. Hamon. (Mead).

## FOREST AND SHADE TREES

### INSECTS

NANTUCKET PINE TIP MOTH (*Rhyacionia frustrana*) - CALIFORNIA - San Diego County--pupae found on Monterey pine at Oceanside week ending January 6, 1978. Pupae 1-3 per tip on 3 small trees. Damage heavy on 15-ft (4.6 m) trees in apartment complex. Extends infestation by 20 miles (32.0 km). First immediate coastal infestation. (Desserich, Bixby).

AN ARMORED SCALE (*Diaspidiotus mcombi*) - ALABAMA - New State record. Lee County--collected on ornamental Pinus taeda (loblolly pine) at Auburn on January 16, 1975, by F. McQueen. Determined by M.L. Williams. (McQueen).

ARMORED SCALES - ALABAMA - New county records for Chionaspis heterophyllae and Diaspidiotus mcombi. Randolph County--taken on Pinus sp. (pine) at Big Pine Water Shed Dam on June 30, 1977. Collected and determined by M.L. Williams. (McQueen).

AN ARMORED SCALE (*Acutaspis morrisonorum*) - ALABAMA - New county records. Tallapoosa County--collected on ornamental Pinus taeda (loblolly pine) at Stillwaters on July 9, 1977. Elmore County--taken on Pinus echinata (shortleaf pine) at Wetumpka on July 17, 1977. Both collected by C.H. Ray and determined by M.L. Williams. (McQueen).

A MEALYBUG (*Eurycoccus jessica*) - ALABAMA - New State record. Randolph County--taken on ornamental Carya tomentosa (Mockernut hickory) at Big Pine Stand Watershed Dam on June 30, 1977. Collected and determined by M.L. Williams. (McQueen).

PUTNAM SCALE (*Diaspidiotus ancylus*) - FLORIDA - New county and host records for State. Hardee County--adults on stems of ornamental Sambucus simpsoni (Florida elder) near Bowling Green, December 20, 1977. Collected by J.T. Felty. Determined by A.B. Hamon. (Mead).

AN ARMORED SCALE (*Chionaspis nyssae*) - ALABAMA - New county record. Randolph County--taken on ornamental Nyssa sylvatica (black tupelo) at Roanoke on July 25, 1977. Collected by C.H. Ray, I. Daniels, and K. Manuel. Determined by M.L. Williams. (McQueen).

## MAN AND ANIMALS

### INSECTS

COMMON CATTLE GRUB (*Hypoderma lineatum*) - OKLAHOMA - Counts per head by county: Pawnee--averaged 15 on 2-year-old heifers January 6, 1978; Payne--ranged 0-19 (averaged 3.6) by January 6 in herd of 87 Hereford cows treated with systemic insecticide in July 1977, averaged 1.2, 1.4, and 4.6 in 3 herds of treated beef cattle week of January 20. (Arnold).

HOG LOUSE (Haematopinus suis) - MISSISSIPPI - Oktibbeha and Noxubee Counties--averaged 3.4 per head on hogs (about 200 lb [100 kg] weight) week ending December 22, 1977. Eggs heavy around head and shoulder areas. Increased on untreated hogs week ending January 12, 1978. Averaged 2.8 per 120-lb (54 kg) hog. (Anderson).

LONGNOSED CATTLE LOUSE (Linognathus vituli) - MISSISSIPPI - Noxubee County--increased, ranged 2-11 per head on cattle sampled week ending December 29, 1977. (Anderson).

## FEDERAL AND STATE PROGRAMS

### DISEASES

DUTCH ELM DISEASE (Ceratocystis ulmi) - CALIFORNIA - New county record. Los Angeles County--confirmed at Beverly Hills. Originally sampled September 21, 1977, and resampled October 21 by P. Hiatt, T. Matsumoto, and R. Sava. Determined by T. Matsumoto and P. Hiatt. Disease isolated from American elm after several unsuccessful attempts. (Hawkins). Infection range in State extended 300 miles (480.0 km). (Holdeman).

### INSECTS

RANGE CATERPILLAR (Hemileuca oliviae) - NEW MEXICO - Union, Harding, and Quay Counties--eggs found on rangeland plants where county boundaries join, week ending January 13, 1978. (Graham).

SCREWORM (Cochliomyia hominivorax) - Total of 98 cases reported from continental United States November 13 to December 31, 1977, as follows: Arizona 92, California 6. (Meadows). Total of 3,681 cases confirmed in portion of Barrier Zone in Republic of Mexico. Total of 4,925 cases reported in Mexico south of Barrier Zone. (Williams, Smith). Number of sterile flies released this period totaled 560,715,400 as follows: Texas 310,345,000, New Mexico 632,000, Arizona 192,959,426, California 45,774,000. (Meadows). Total of 1,230,384,000 sterile flies released within Barrier of Mexico. (Williams, Smith).

## LIGHT TRAP COLLECTIONS

CALIFORNIA - Stockton, 1/10/78, temp. 44-61 degrees F, BL - VARIEGATED CUTWORM (Peridroma saucia) 1. FLORIDA - Gainesville, 1/12-18/78, BL - BLACK CUTWORM (Agrotis ipsilon) 1, GRANULATE CUTWORM (Feltia subterranea) 4, ARMYWORM (Pseudaletia unipuncta) 1.



## HAWAII PEST REPORT

**New State Record.** Three adults of a CARABID BEETLE (Stenolophus quinquepustulatus) collected by J.W. Beardsley at Hickam Air Force Base, Oahu, from light trap October 7, 1977. Total of 6 more specimens collected from same location and from Barbers Point Naval Air Station and Waipahu, Oahu. Determined by G.E. Ball. (Beardsley).

**General Vegetables - LEAFMINER FLIES** (Liriomyza spp.) infestations heavy (75-80% of leaves heavily mined) on 3 acres (1.2 ha) of cucumber and moderate to heavy (50% of leaves moderately mined) on 2 acres (0.8 ha) of tomato at Kihei, Maui, week ending December 23, 1977. (Miyahira, L. Nakahara). Heavy on 1.5 acres (0.6 ha) of tomato at Wailua Homestead, Kauai, week ending December 30. Mining on lower 50% of tomato plants (near bearing stage) destroyed 90% of plants. (Lai et al.). **GREENHOUSE WHITEFLY** (Trialeurodes vaporariorum) heavily infested 99+% of leaves on tomato in one 4,000-sq ft (371.6 sq m) greenhouse at Kalopa, Hawaii Island, week ending January 20. (Burkhart et al.). Infestations heavy on 2,000 sq ft (185.8 sq m) of eggplant at Hoolehua, Molokai, week ending December 23, 1977. **Adult MELON FLY** (Dacus cucurbitae) infestations heavy on 1 acre of watermelon and 2,000 sq ft of cucumber at Hoolehua. About 50% of cucumber fruits unmarketable week ending December 23, 1977. (L. Nakahara). Infestations and damage heavy on 0.25 acre (.1 ha) of untreated pumpkins at Mikilua, Oahu, week ending January 6, 1978; 90+% of fruits (especially immature forms) completely destroyed. **BEAN FLY** (Ophiomyia phaseoli) infestations heavy and damage moderate on 0.5 acre (.2 ha) of yardlong beans at Lualualei, Oahu, week ending January 6, 1978. Larval sites averaged 6 (ranged 1-15) per ft (30.5 cm) of stem. (Lai et al.). **CORN PLANTHOPPER** (Peregrinus maidis) infestations heavy, about 5-30 per leaf axil, on 4 acres (1.6 ha) of bearing sweet corn at Kilauea, Kauai, week ending January 13, 1978. **WEST INDIAN SWEETPOTATO WEEVIL** (Euscepes postfasciatus) and **SWEETPOTATO VINE BORER** (Bedellia orchilella) infestations heavy in 0.75 acre (.3 ha) of sweetpotato at Waiahole Valley, Oahu; loss 10%. **ONION THRIPS** (Thrips tabaci) infestations and foliar damage heavy on 5,000 sq ft (464.5 sq m) of untreated green onions at Mikilua week ending January 6. (Lai et al.). Infestations of a **MIRID** (Pycnoderes quadrimaculatus) heavy, ranged 3-30 (averaged 5) per leaf on 0.25 acre of pumpkin at Mikilua week ending January 6. **BROAD MITE** (Polyphagotarsonemus latus) moderate to heavy (40-60% of terminals affected) on 0.25 acre of yardlong beans at Waiahole Valley, Oahu, week ending January 13. **CARMINE SPIDER MITE** (Tetranychus cinnabarinus) moderate on 0.25 acre of pole beans at Waimanalo, Oahu, week ending December 30, 1977. Heavily infested adjacent 0.25 acre of pole beans, planting abandoned. (Lai, Murai).

**Ornamentals - New island records.** **AUSTRALIAN FERN WEEVIL** (Syagrus fulvitaris) feeding damage light on several pots of Boston fern at Lanai City, Lanai Island, January 8, 1978. Collected by G. Taniguchi and S. Kahoolalahala. Determined by S. Higa. **WHITELINED SPHINX** (Hyles lineata) infestations light on ornamental **Portulaca** at Lanai City, Lanai Island, January 8, 1978. Collected by G. Taniguchi and S. Kahoolalahala. Determined by G. Taniguchi. (Taniguchi). Infestations of a **WHITEFLY** (Orchamoplatus mammaeferus) heavy (immatures and adults) on backyard croton in Palolo Valley, Oahu. Eggs heavy on new foliage. New host record for State: All stages very light on Lagerstroemia indica (common crapemyrtle) at Palolo. Observed December 15, 1977, by L. Nakahara. (L. Nakahara).

**Turf and Pasture - GRASS WEBWORM** (Herpetogramma licarsisalis) infestations generally moderate (heavy in spots) on various lawn grasses at Papaikou and Hilo, Hawaii Island, week ending December 30, 1977. Larvae and pupae averaged 14 (ranged 3-38) per sq ft (0.09 sq m) in 4 sites at the 2 locations. Few tachinid parasites noted at each site. Outbreak appears worse of past several years. (Matayoshi, Yoshioka).



Snail Pest - Heavy rains in mid-December began GIANT AFRICAN SNAIL (Achatina fulica) activity in all project areas on Kauai. Baiting conducted in key areas in Poipu and Waipouli which serve as snail reservoirs during summer. (Sugawa)

Miscellaneous - New island record for a NOCTUID MOTH (Leucania striata). Maui Island--one female taken in light trap in Haleahola National Park at Palihu, June 3, 1976. Collected by F.G. Howarth. Determined by J.W. Beardsley. (L. Nakahara).

## DETECTION

### NEW NORTH AMERICAN RECORDS

#### INSECTS

AN ARMORED SCALE (Kuwanaspis linearis (Green)) - PUERTO RICO. (p. 11).

AN ARMORED SCALE (Octaspidiotus araucariae Adachi and Fullaway) - PUERTO RICO. (p. 11).

### NEW UNITED STATES RECORDS

#### INSECTS

AN ARMORED SCALE (Duplaspidiotus fossor (Newstead)) - PUERTO RICO. (p. 11).

AN ARMORED SCALE (Lepidosaphes vermiculus Mamet) - PUERTO RICO. (p. 11).

### NEW STATE AND PUERTO RICAN RECORDS

#### INSECTS

AN ARMORED SCALE (Diaspidiotus mccombi) - ALABAMA - Lee County. (p. 6).

ARMORED SCALES (Aonidiella inornata, Odonaspis penicillata, and Parlatoria proteus) - PUERTO RICO. (p. 11).

A CARABID BEETLE (Stenolophus quinquepustulatus) - HAWAII - Oahu Island. (p. 8).

A MEALYBUG (Brevinnia rehi) - PUERTO RICO. (p. 11).

MEALYBUGS (Eurycoccus jessica and Trionymus caricis) - ALABAMA - Randolph County. (p. 6).

### NEW COUNTY AND ISLAND RECORDS

#### DISEASES

DUTCH ELM DISEASE (Ceratocystis ulmi) - CALIFORNIA - Los Angeles. (p. 7).

#### INSECTS

AN ARMORED SCALE (Abgrallaspis cyanophylli) - ALABAMA - Randolph. (p. 5).

AN ARMORED SCALE (Acutaspis morrisonorum) - ALABAMA - Tallapoosa and Elmore. (p. 6).

ARMORED SCALES (Chionaspis nyssae, C. heterophyllae, and Diaspidiotus mcombi) - ALABAMA - Randolph. (p. 6).

AUSTRALIAN FERN WEEVIL (Syagrus fulvitaris) - HAWAII - Lanai. (p. 8).

AN ERIOCOCCID SCALE (Eriococcus araucariae) - FLORIDA - Palm Beach. (p. 6).

A MEALYBUG (Pseudococcus sorghiellus) - ALABAMA - Randolph. (p. 4).

A NOCTUID MOTH (Leucania striata) - HAWAII - Maui. (p. 9).

PUTNAM SCALE (Diaspidiotus ancylus) - FLORIDA - Hardee. (p. 6).

A WHITEFLY (Orchamoplatus mammaeferus) - HAWAII - Oahu. (p. 9).

WHITELINED SPHINX (Hyles lineata) - HAWAII - Lanai. (p. 8).

#### CORRECTIONS

CPPR 2(48-52):870 - ALFALFA WEEVIL (Hypera postica) - KENTUCKY (Christensen, Leibner) should read (Christensen, Leibee).

CPPR 2(48-52):876 - BROWN GARDEN SNAIL (Helix aspera) should read (Helix aspersa)

COCCOIDEA NEW TO PUERTO RICO

New North American Records - An ARMORED SCALE (Kuwanaspis linearis (Green)) from Bambusa sp. at Barcelona, July 16, 1977; at Mayaguez, July 20; and at Rio Piedras (Botanical Garden), July 23. Collected and determined by S. Nakahara. Described from Sri Lanka. Specimens in U.S. National Museum (USNM) from Colombia. Economic importance unknown. (S. Nakahara).

An ARMORED SCALE (Octaspidiotus araucariae Adachi and Fullaway) collected from Araucaria excelsa at Rio Piedras by C.E. Miller and S. Nakahara, July 12, 1977. Determined by S. Nakahara. Known from Hawaii, New Caledonia, and Caroline Islands--Ponape, only on A. excelsa. (S. Nakahara, C.E. Miller).

New United States Records - An ARMORED SCALE (Duplaspidiotus fossor (Newstead)) from Ficus sp. at Boqueron, July 18, 1977. Collected and determined by S. Nakahara. Reported elsewhere from Barbados, Brazil, and Mexico. Economic importance unknown. (S. Nakahara).

An ARMORED SCALE (Lepidosaphes vermiculus Mamet) collected from Cocos nucifera and Yucca sp. at Isla Verde by S. Nakahara, July 14, 1977. Earlier quarantine interceptions from Puerto Rico at Boston from coconut, April 27, 1926, by C.A. Davis and at San Juan from Yucca sp. by H.K. Plank, May 17, 1959, deposited in the USNM. Determined by S. Nakahara. Described from Mauritius. Specimens in the USNM from Barbados, Dominica, St. Thomas, and Venezuela. Economic importance unknown. (S. Nakahara).

New Puerto Rican Records - An ARMORED SCALE (Aonidiella inornata) from unknown plant at Isla Verde, and from Citrus sp. at Canovanas, Catano, Humacao, Juncos, Loiza, near Mameyes, Mayaguez, and Punta Santiago by various collectors during 1977. Earliest record in USNM is a quarantine interception from Citrus sp. at Washington D.C. from Rio Piedras in 1932. Determined by S. Nakahara. Two lots in USNM collected from lime at Santurce by F. Sein, July 1, 1947, and from sweet lime at Aguadilla by Oakley and Mills, June 25, 1948, apparently unreported in the literature. Introduced into Hawaii and reported once from Texas. (S. Nakahara, C.E. Miller).

An ARMORED SCALE (Odonaspis penicillata) collected from Bambusa sp. at Rio Piedras (Botanical Garden) by E. Feliu, C.E. Miller, and S. Nakahara, July 13, 1977. Determined by S. Nakahara. (S. Nakahara, C.E. Miller, Feliu).

Specimens of an ARMORED SCALE (Parlatoria proteus) collected from Calophyllum brasiliense and Brassaia actinophylla at Isla Verde, July 10 and 14, 1977, and from Phoenix dactylifera at Puerta de Tierra (Munoz Rivera Park), July 14, by S. Nakahara; from Vanda sp. near Bayamon by E. Feliu and S. Nakahara, July 12. Determined by S. Nakahara. This widespread and polyphagous species intercepted by agricultural quarantine inspectors at San Juan from Puerto Rico in 1974 and 1976. (S. Nakahara, C.E. Miller, Feliu).

A MEALYBUG (Brevennia rehi) collected from unknown grass at San Juan by C.E. Miller, E. Feliu, and S. Nakahara, July 13, 1977; and from Cynodon sp., at Playa Las Croabas by S. Nakahara, July 16. Determined by S. Nakahara. (S. Nakahara, C.E. Miller, Feliu).

# Pest Interceptions of Quarantine Significance at Ports of Entry

## Plant Importation and Technical Support Staff Plant Protection and Quarantine Programs, USDA

	<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Destination</u>
<u>Uredo oncidii</u> P. Henn. a rust Det. F.G. Pollack	uredial	on <u>Oncidium</u> orchids from cargo	Mexico	Brownsville	TX
<u>Acrolepia assectella</u> (Zeller) leaf moth Det. D.M. Weisman	pupal	on leaks in ship stores	Spain	Houston	---
<u>Anacridium aegyptium</u> (Linnaeus) a grasshopper Det. A.B. Gurney	adult	in holds of military aircraft	Sicily	Norfolk	VA
<u>Anurogryllus</u> sp. a cricket Det. A.B. Gurney	adult	on deck of ship	Colombia	Tampa	FL
<u>Carposina niponensis</u> Walsingham peach fruit moth Det. D.M. Weisman	larval	in apples from ship stores	Korea	Jacksonville	---
<u>Conotrachelus aguacatae</u> Barber a weevil Det. R.L. Hodgdon	larval	in seed of avocado from baggage	Mexico	Laredo	TX
<u>Conotrachelus flavangulus</u> Champion a weevil Det. D.R. Whitehead	adult	with cargo of cut flowers	Guatemala	Houston	USA
<u>Diaprepes abbreviatus</u> (Linnaeus) West Indian sugarcane root borer Det. C.E. Miller	adult	in yams from cargo	Puerto Rico	San Juan	NY



<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Destination</u>
<u>Epinotia aporema</u> (Walsingham) an olethreutid moth Det. D.M. Weisman				
<u>Hypera constans</u> (Boheman) a weevil Det. D.R. Whitehead	in beans from cargo	Mexico	Hidalgo	TX
<u>Maruca testulalis</u> (Geyer) bean pod borer Det. C.E. Miller	with cork bark from cargo	Portugal	Baltimore	IL
<u>Pissodes pini</u> (Linnaeus) a weevil Det. D.R. Whitehead	in pods of pigeon pea from baggage	Puerto Rico	San Juan	GA
<u>Saperda carcharias</u> (Linnaeus) a cerambycid beetle Det. D.M. Anderson	in wood dunnage from a barge	West Germany	Mobile	AL
<u>Sesamia</u> sp. a noctuid moth Det. D.M. Weisman	in wood with steel cabinets	Italy	San Francisco	CA
<u>Udea ferrugalis</u> (Hübner) a pyralid moth Det. D.C. Ferguson	in pampas grass dried flowers	Spain	Charleston	FL
<u>Pallifera</u> sp. a philomycid slug Det. R. Eads	in holds of military aircraft	Spain	Dover	DE
	with orchid plants from cargo	Mexico	El Paso	CO

Identification of Megaselia agarici (Lintner)  
and Megaselia halterata (Wood) (Diptera: Phoridae)

William H Robinson 1/

ABSTRACT. Accurate identification of the two species of phorid flies that commonly attack cultivated mushrooms in the U.S. is important. The diagnoses presented will help identify Megaselia agarici (Lintner) and M. halterata (Wood).

Phorid flies in the genus Megaselia are the most important pests of cultivated mushrooms (Agaricus bisporus (Lange) Singer) in the United States and England. The principal species in England is M. halterata, although M. bovista (Gimmerthal) and M. nigra (Meigen) also have been reported as pests. Until recently, M. agarici was considered the principal phorid pest in the United States. Robinson (1975, 1977) reported M. halterata occurring in the United States and displacing M. agarici in the mushroom houses of eastern U.S.

Although no longer associated with cultivated mushrooms, M. agarici is often found infesting wild (uncultivated) mushrooms in eastern U.S. M. halterata has not yet been reported from wild mushrooms in the U.S. Apparently M. halterata can displace M. agarici from U.S. mushroom farms but not from the primary niche of wild mushrooms.

The phorid flies associated with cultivated mushrooms in the U.S. should be monitored frequently. Megaselia species introduced from foreign mushroom-growing areas can become established. Accurate identification of M. agarici and M. halterata is essential to recognizing a Megaselia species new to the U.S. The diagnoses presented below will help identify M. agarici and M. halterata.

Megaselia (Megaselia) agarici (Lintner)

Adult diagnosis. This species is distinguished from other North American Megaselia by the following combination of characters: Mesanepisternum bare; scutellum with 2 strong bristles; costa about 0.38% of wing length,  $R_{4+5}$  vein with 4 sensilla (Fig. 2), sensilla in line; halteres yellow. Male genitalia: Epandrium (Fig. 5) lacks strong bristles, pale unarticulated process extends beneath proctiger; hypandrium left lobe narrowed apically. Female genitalia: Sternum 6 elongate, capitate, with 4 bristles.

Third-stage larva diagnosis. Body subcylindrical, convex ventrally, truncate posteriorly, slightly tapered anteriorly (Fig. 1); yellowish white. Segment 8 dorsal papillae approximate. Buccopharyngeal skeleton heavily pigmented, visible through integument.

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Megaselia (Megaselia) halterata (Wood)

Adult diagnosis. This species is distinguished from other North American Megaselia by the following combination of characters: Mesanepisternum bare; scutellum with 2 strong bristles; costa about 0.37% of wing length, R<sub>4+5</sub> vein with 4 sensilla (Fig. 4), sensilla not in line; halteres yellow. Male genitalia: Epandrium (Fig. 6) with 2-3 strong bristles laterally on right; hypandrium left lobe reduced to thorn-like process. Female genitalia: Sternum 6 absent.

Third-stage larva diagnosis. Body subcylindrical, convex ventrally, truncate posteriorly, sharply tapered anteriorly (Fig. 3); yellowish white. Segment 8 dorsal papillae widely spaced. Buccopharyngeal skeleton not pigmented, indistinct.

Acknowledgements

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References

- Robinson, W.H. 1975. Taxonomic notes on North American Megaselia (Diptera: Phoridae). Proc. Entomol. Soc. Washington 77:382-383.
- \_\_\_\_\_. 1977. Phoridae (Diptera) associated with cultivated mushrooms in eastern North America. Proc. Entomol. Soc. Washington 79(3):452-462.

See illustrations next page.

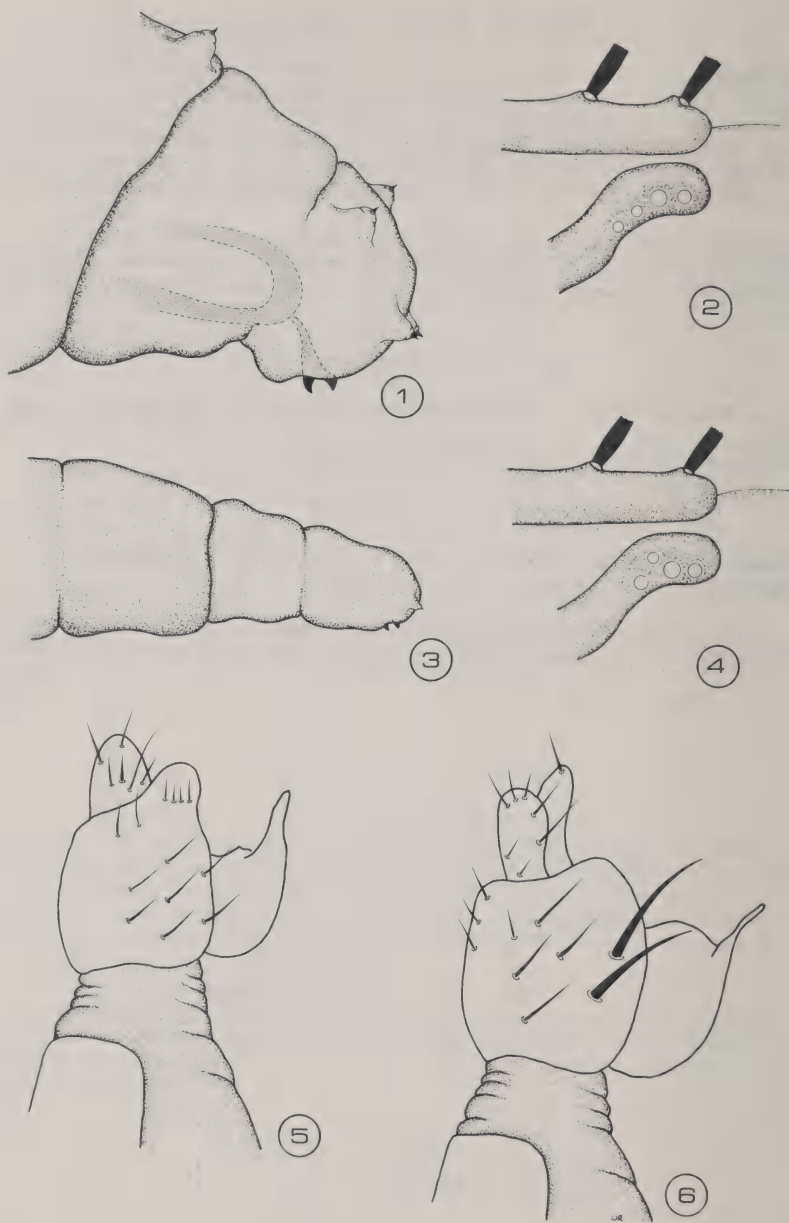


Fig. 1, *Megamelus agarici*, third-stage larva anterior end, lateral view. Fig. 2, *M. agarici* adult, apical portion of  $R_{4+5}$  vein, dorsal view. Fig. 3, *M. halterata* third-stage larva anterior end, lateral view. Fig. 4, *M. halterata* adult, apical portion of  $R_{4+5}$  vein, dorsal view. Fig. 5, *M. agarici* adult, male epandrium and hypandrium, lateral view. Fig. 6, *M. halterata* adult, male epandrium and hypandrium, lateral view.

U.S. Dep. Agric., Coop. Plant Pest Rep., 3(1-4):14-16, 1978



# PEST DETECTION IN THE UNITED STATES - 1977

There were 17 new United States records reported in the "Cooperative Plant Pest Report" during 1977. These records include 15 insects, 1 disease, and 1 weed. Five pests were reported for the first time on the North American continent -- two in Pennsylvania and one each in Illinois, New Jersey, and Washington. None of the species reported in Hawaii is known from the continental United States. There were 81 new State distribution records and one Puerto Rican record of species known to occur in the U.S. -- 7 diseases, 70 insects and mites, 1 snail, and 4 weeds.

## NEW UNITED STATES RECORDS

<u>State</u>	<u>County</u>	<u>Probable Origin</u>	<u>Collected on</u>	<u>CPPR Page</u>	<u>Economic Importance</u>
Hawaii	Oahu Island	Southeast Asia, Sudan	At large	875	Noneconomic
Illinois	Madison	Europe	<u>Armoracia rusticana</u>	490	Could be economic
New Jersey	Cumberland	Palearctic	<u>Triticum aestivum</u>	802	Probably noneconomic
Hawaii	Oahu Island	Samoa	At large	105	Noneconomic
Hawaii	Oahu Island	Indonesia Micronesia	Light trap	825	Noneconomic

Appolonius sp.  
a lygaeid bug 1/  
Det. J.L. Herring

Baris lepidii Germar  
a weevil 1/  
Det. J. Bouseman;  
conf. D.M. Whitehead

Brachycaenus tigrinus  
(Schilling)  
a rhopalid bug 1/  
Det. R. Hoebeke;  
conf. J.L. Herring

Fornax samoensis Fleutiaux  
a eucnemid beetle  
Det. J.W. Beardsley

Leptynoptera sulfurea  
Crawford  
a psyllid 1/  
Det. J.W. Beardsley

<u>State</u>	<u>County</u>	<u>Probable Origin</u>	<u>Collected on</u>	<u>CPPR Page</u>	<u>Economic Importance</u>
<u>Leucania striata</u> Leech a noctuid moth 1/ Det. K. Sattler & A.H. Hayes	Hawaii	Japan	Light trap	878	Could be economic
<u>Lipamyzodes matthirolae</u> (Doncaster) an aphid 2/ Det. D. Hille Ris Lambers	Washington	Europe	<u>Cardaria draba</u>	104	Probably noneconomic
<u>Orthotylus nassatus</u> (Fabricius) European plant bug 1/ Det. T.J. Henry	Pennsylvania	Europe	<u>Pyrus</u> sp.	605	Probably noneconomic
<u>Pandesma anysa</u> Guenée a noctuid moth 1/ Det. E.L. Todd	Hawaii	Africa, Asia, Spain	Light trap	548	Probably noneconomic
<u>Parlatoria fluggeae</u> Hall an armored scale 1/ Det. S. Nakahara	Hawaii	Africa, Asia	<u>Jatropha integerrima</u>	222	Probably noneconomic
<u>Pharoscyrnus</u> sp. a lady beetle 1/ Det. R.D. Gordon	Hawaii	Old World	Light trap	786	Beneficial
<u>Prospalta dolorosa</u> (Walker) a noctuid moth 1/ Det. E.L. Todd	Hawaii	Asia, Australia, Melanesia, Christmas Island	Light trap	707	Probably noneconomic
<u>Pseudococcus</u> n.sp. a mealybug 1/ Det. J.W. Beardsley; conf. D.J. Williams	Hawaii	Australia	<u>Dendrobium spp.</u>	856	Could be economic

<u>State</u>	<u>County</u>	<u>Probable Origin</u>	<u>Collected on</u>	<u>CPPR Page</u>	<u>Economic Importance</u>
<u>Puccinia horiana</u> P. Hennings <u>white chrysanthemum rust</u> 2/ Det. L. Forer; conf. F. Pollack	Pennsylvania	Northampton	Argentina, Europe, Asia, New Zealand	812	Economic
<u>Sardia pluto</u> (Kirkaldy) <u>a delphacid planthopper</u> 1/ Det. J.P. Kramer	Hawaii	Oahu Island	Light trap	11	Noneconomic
<u>Solanum robustum</u> (H. Wendl.) <u>shrub nightshade</u> 3/ Det. W.G. D'Arcy	Hawaii	Maui Island	-	765	Economic
<u>Xyleborus interjectus</u> Blandford a scolytid beetle 1/ Det. G.A. Samuelson; conf. D.M. Anderson	Hawaii	Oahu Island	-	222	Could be economic

1/ First report in Western Hemisphere  
2/ First time reported from North American continent  
3/ Not known to occur in continental U.S.

NEW STATE RECORDS - 1977

<u>Species</u>	<u>State</u>	<u>County</u>	<u>Collected on</u>	<u>CPPR Page</u>
<u>Abutilon theophrasti</u> velvetleaf	Idaho	Payette Kootenai	garden garden	731 731
<u>Acontia dacia</u> brown cotton leafworm	Alabama	Marengo	<u>Glycine max</u>	851
<u>Acyrtosiphon kondoi</u> blue alfalfa aphid	Nebraska Oklahoma Oregon	Lancaster Nowata Jackson	<u>Medicago</u> <u>sativa</u>	342 217 413
<u>Aedes taeniorhynchus</u> a mosquito	New Hampshire	Rockingham	light trap	674
<u>Agraulis vanillae</u> <u>vanillae</u> a nymphalid butterfly	Hawaii	Oahu Island	<u>Passiflora</u> <u>foetida</u>	11
<u>Agrobacterium</u> <u>tumefaciens</u> crown gall	Tennessee	Franklin	<u>Cornus florida</u>	104
<u>Anisostena ariadne</u> a chrysomelid beetle	Maryland	Somerset	roadside	469
<u>Anomala umbra</u> a scarab	Maryland	Worcester	blacklight trap	549
<u>Aphis sambucifoliae</u> an aphid	Oklahoma	Payne	<u>Sambucus</u> <u>canadensis</u>	419
<u>Apion longirostre</u> hollyhock weevil	West Virginia	Monongalia	<u>Alcea rosea</u>	516
<u>Asterolecanium</u> <u>pseudomiliaris</u> a pit scale	Hawaii	Oahu Island	bamboo	199
<u>Bathyplectes anurus</u> an ichneumonid wasp	Connecticut Rhode Island Tennessee Vermont	Litchfield New Haven Washington Cocke Cumberland Bennington Rutland	- - - - - -	24 24 840 24 24 24 24



<u>Species</u>	<u>State</u>	<u>County</u>	<u>Collected on</u>	<u>CPPR Page</u>
<u>Braggia echinata</u> an aphid	Utah	Uintah	<u>Eriogonum</u> sp.	161
<u>Brevennia rehi</u> a mealybug	Texas	Hidalgo	<u>Panicum</u> sp.	340
<u>Calaphis betulella</u> an aphid	Oklahoma	Wagoner	<u>Betula</u> sp.	238
<u>Calliephialtes</u> <u>grapholithae</u> an ichneumonid wasp	Hawaii	Oahu Island	at large	796
<u>Calomycterus setarius</u> a weevil	Kentucky	Fayette	residence	653
<u>Centromadia pungens</u> spikeweed	Idaho	Nez Perce	-	69
<u>Ceutorhynchus assimilis</u> cabbage seedpod weevil	Maryland	Howard	<u>Brassica</u> <u>oleracea</u>	812
<u>Chionaspis gleditsiae</u> an armored scale	Florida	Suwannee	<u>Gleditsia</u> <u>aquatica</u>	471
<u>Chorioptes bovis</u> a psoroptid mite	Florida	Levy	<u>Bovis</u> sp.	62
<u>Comperia merceti</u> an encyrtid wasp	Wisconsin	Dane	<u>Supella</u> <u>longipalpa</u>	27
<u>Crupina vulgaris</u> common crupina	Idaho	Idaho	rangeland	782
<u>Culiseta minnesotae</u> a mosquito	New Hampshire	Rockingham	CDC light trap	706
<u>Deroceras</u> <u>reticulatum</u> gray garden slug	Hawaii	Hawaii Island	<u>Brassica</u> <u>oleracea</u>	325
<u>Diaparsis</u> sp. an ichneumonid wasp	Kentucky Massachusetts	Mercer Berkshire	- <u>Oulema melanopus</u>	542 597
<u>Dichromothrips corbetti</u> a thrips	Puerto Rico	-	<u>Vanda</u> cv.	731
<u>Ehrhornia cupressi</u> a mealybug	Missouri	Johnson	<u>Juniperus</u> sp.	389
<u>Eriophyes granati</u> an eriophyid mite	Hawaii	Oahu Island	<u>Punica granatum</u>	548
<u>Euacidalia brownsvillea</u> a geometrid moth	Hawaii	Lanai Island	at large	875
<u>Eubazus rotundiceps</u> a braconid wasp	Oklahoma	Payne	<u>Magdalis</u> sp.	730

<u>Species</u>	<u>State</u>	<u>County</u>	<u>Collected on</u>	<u>CPPR Page</u>
<u>Eupteromalus tachinae</u> a pteromalid wasp	Oklahoma	Texas	<u>Bathyplectes</u> <u>curculionis</u>	264
<u>Formica obscuriventris</u> <u>obscuriventris</u> an ant	Utah	Cache	at large	71
<u>Formica opaciventris</u> an ant	Utah	Cache	at large	71
<u>Formica subsericea</u> an ant	Utah	Cache	at large	71
<u>Furchadaspis zamiae</u> an armored scale	Hawaii	Oahu Island	<u>Cycas revoluta</u>	199
<u>Helianthus ciliaris</u> Texas blueweed	Idaho	Twin Falls	-	70
<u>Heterospilus baeticatus</u> a braconid wasp	Hawaii	Oahu Island	at large	11
<u>Janus abbreviatus</u> willow shoot sawfly	Mississippi	Washington	<u>Salix</u> spp. and <u>Populus</u> spp.	596
<u>Kermes branigani</u> an oak kermes scale	Texas	Brewster	<u>Quercus grisea</u>	813
<u>Labopidea allii</u> onion plant bug	Pennsylvania	Dauphin	<u>Allium</u> sp.	417
<u>Leperisinus californicus</u> a scolytid beetle	New Mexico	Curry	ash	7
<u>Lepidosaphes yanagicola</u> an armored scale	Oklahoma	Cherokee	<u>Euonymus alatus</u>	227
<u>Lissorhoptrus chapini</u> <u>chapini</u> a weevil	Connecticut	New Haven	salt marsh	815
<u>Lithophane laticinerea</u> a noctuid moth	Iowa	Scott	<u>Acer</u> sp. et al.	517
<u>Loxagrotis albicosta</u> western bean cutworm	Oklahoma	Cimarron	<u>Zea mays</u>	114
Maize dwarf mosaic virus	Michigan	Missaukee	<u>Zea mays</u>	868
		Presque Isle		868
		Tuscola		868
	North Dakota	Cass	<u>Zea mays</u>	868
<u>Martyrhilda canella</u> an oecophorid moth	Virginia	Montgomery	blacklight trap	520
<u>Megalonotus sabulicola</u> a lygaeid bug	Maryland	Talbot	-	871

<u>Species</u>	<u>State</u>	<u>County</u>	<u>Collected on</u>	<u>CPPR Page</u>
<u>Melanophthalma</u> <u>distinguenda</u> a tathridiid beetle	North Dakota	Rolette	-	785
<u>Microctonus aethiopoides</u> a braconid wasp	Kentucky Maine	Henderson Cumberland	- -	840 840
<u>Myrmecocystus</u> <u>hammettensis</u> an ant	Utah	Box Elder	at large	71
<u>Odontota dorsalis</u> locust leafminer	Vermont	Chittenden	<u>Robinia</u> <u>pseudoacacia</u>	853
<u>Oligonychus pratensis</u> Banks grass mite	Missouri	Buchanan	<u>Zea mays</u>	639
<u>Orthemis ferruginea</u> a libellulid dragonfly	Hawaii	Oahu Island	at large	856
<u>Oulema melanopus</u> cereal leaf beetle	New Hampshire	Merrimack	<u>Avena sativa</u>	53
<u>Perilitus coccinellae</u> a braconid wasp	Oklahoma	Payne	<u>Hippodamia</u> <u>convergens</u>	813
<u>Philaenus spumarius</u> meadow spittlebug	Nebraska	Saunders	<u>Medicago sativa</u>	144
<u>Physoderma alfalfae</u> alfalfa crown wart	Pennsylvania	Washington	<u>Medicago sativa</u>	531
<u>Pityophthorus scriptor</u> a scolytid beetle	Oklahoma	Major	<u>Rhus</u> sp.	824
<u>Pseudobaris nigrina</u> a weevil	Idaho	Ada	mint	468
<u>Puccinia horiana</u> white chrysanthemum rust	New Jersey	Union	<u>Chrysanthemum</u> spp.	815
<u>Pycnotomina cavicolle</u> a rhizophagid beetle	Maryland	Independent City of Baltimore	pine lure trap	549
<u>Quadraspidiotus</u> <u>ostreaeformis</u> European fruit scale	Oregon	Hood River	<u>Malus sylvestris</u>	104
<u>Rhopalosiphoninus</u> <u>latysiphon</u> an aphid	Hawaii	Hawaii Island	<u>Metrosideros</u> <u>collinus</u>	105
<u>Scyphophorus yuccae</u> a weevil	Nevada	Clark	<u>Yucca</u> sp.	37

<u>Species</u>	<u>State</u>	<u>County</u>	<u>Collected on</u>	<u>CPPR Page</u>
Soil-borne wheat mosaic virus	Kentucky	Franklin	<u>Triticum</u> <u>aestivum</u>	696
<u>Spangbergiella</u> <u>quadripunctata</u> a leafhopper	Hawaii	Oahu Island	-	53
<u>Syndyas polita</u> an empidid fly	Texas	Montgomery	<u>Pinus echinata</u> , <u>P. taeda</u>	813
<u>Tetrastichus julis</u> a eulophid wasp	New Jersey	Warren	-	706
<u>Trichogramma maltbyi</u> a minute egg parasite	Virginia West Virginia	Augusta Mason	<u>Oulema melanopus</u> <u>Oulema melanopus</u>	706 706
<u>Vespula germanica</u> a vespid wasp	West Virginia	Monongalia	building	250
Wheat streak mosaic virus	Kentucky	Franklin	<u>Triticum</u> <u>aestivum</u>	696

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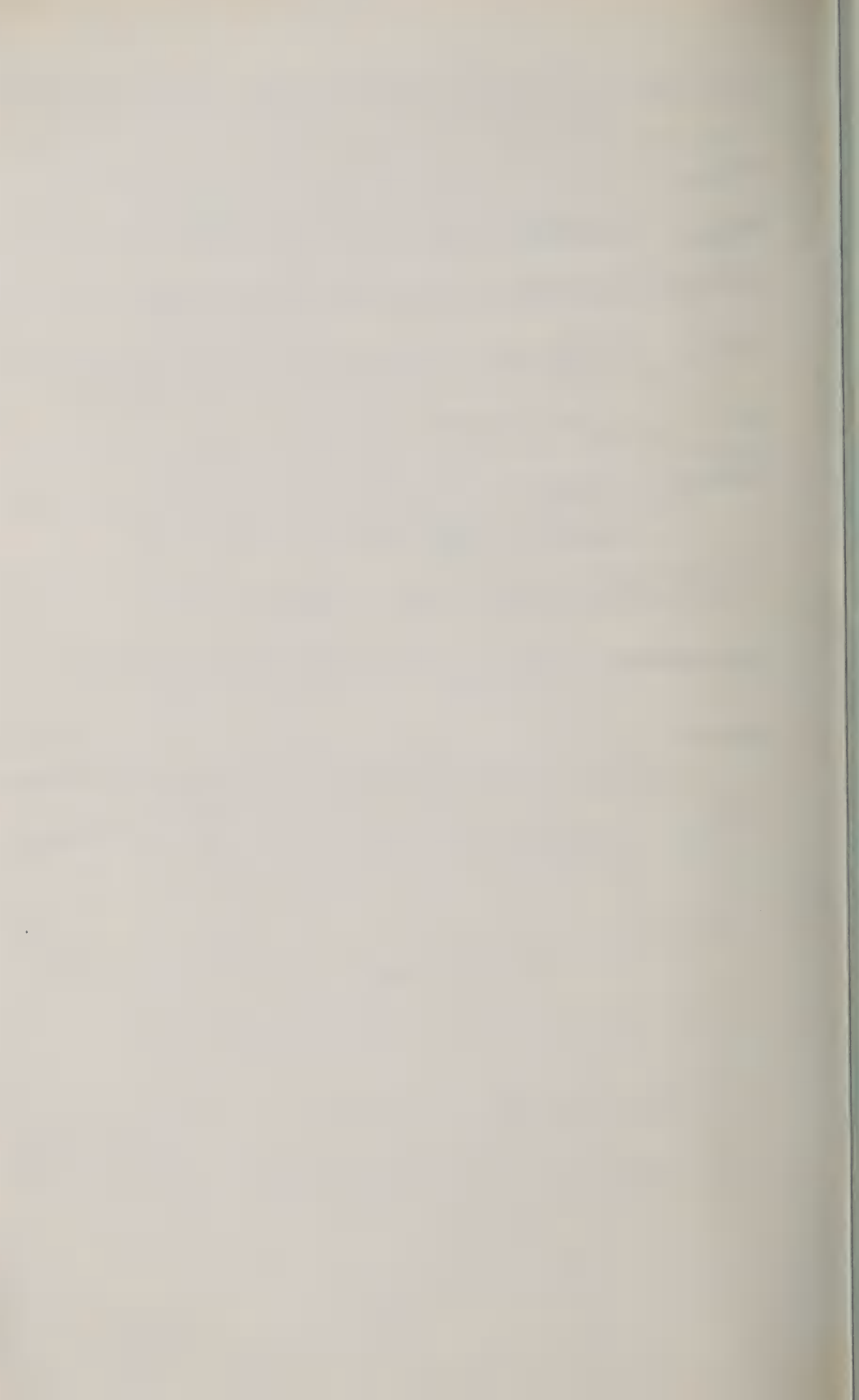
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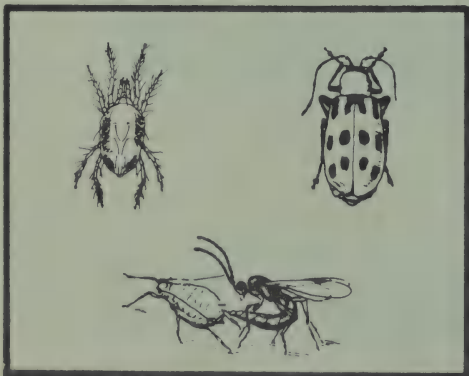
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This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

*Cooperative Plant Pest Report* supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

*Correspondence should be directed to:*

*CPPR*

New Pest Detection and Survey Staff  
Plant Protection and Quarantine Programs  
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## **COOPERATIVE PLANT PEST REPORT**

### **HIGHLIGHTS**

#### Detection

For new county records see page 35.

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Reports in this issue are for the week ending January 27 unless otherwise indicated.



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## SPECIAL PESTS OF REGIONAL SIGNIFICANCE

### INSECTS

GREENBUG (Schizaphis graminum) - TEXAS - Maximum (and means) per 30 row cm (row ft) of small grains by county January 16: Wichita and Young--260 (5-178), Archer and Baylor--30, Fisher--5, Foard and Hardeman--ranged 5-130. Current ranges: Foard, Hardeman, Wichita, and Wilbarger--75-150 on wheat, 5-50 on most small grains, and 200-300 in spots. (Boring). NEW MEXICO - Hidalgo County--very light on small grains in Cotton City and Virden areas, adults and nymphs averaged fewer than 5 per 0.8 sq m (sq yd). Many fields heavily grazed, very little foliage left. Only occasional aphid in these fields. Heaviest on volunteer small grain in seedling alfalfa fields or unplowed 1977 grain fields. (Nielsen).

### DECIDUOUS FRUITS AND NUTS

#### INSECTS

WHITE PEACH SCALE (Pseudaulacaspis pentagona) - ALABAMA - New county record. Marshall County--collected on ornamental Juglans nigra (eastern black walnut) at Guntersville, June 2, 1977, by F. Wood. Determined by M.L. Williams. (McQueen).

### SMALL FRUITS

#### INSECTS

A SOFT SCALE (Pulvinaria acericola) - ALABAMA - New county record. Barbour County--collected on ornamental Vaccinium sp. (blueberry) at White Oak Creek, March 23, 1976, by C.H. Ray. Determined by M.L. Williams. (McQueen).

### FOREST AND SHADE TREES

#### INSECTS

A SOFT SCALE (Pseudophilippia quaintancii) - ALABAMA - New county record. Chambers County--taken on ornamental Pinus sp. (pine) at Lafayette, June 30, 1977. Collected and determined by M.L. Williams. (McQueen).

PUTNAM SCALE (Diaspidiotus ancylos) - ALABAMA - New county record. Madison County--collected on ornamental Carya ovata (shagbark hickory) at Huntsville, May 8, 1977, by C.H. Ray. Determined by M.L. Williams. (McQueen).

WALNUT SCALE (Quadraspidiotus juglansregiae) - ALABAMA - New county record. Randolph County--taken on Cornus florida (flowering dogwood) at Wedowee, May 20, 1977. Collected and determined by M.L. Williams. (McQueen).

AN ARMORED SCALE (Chionaspis nyssae) - ALABAMA - New county record. Tallapoosa County--collected on ornamental Nyssa sylvatica (black tupelo) at Stillwaters, July 9, 1977, by C.H. Ray. Determined by M.L. Williams. (McQueen).

EUROPEAN FRUIT LECANIUM (Lecanium corni) - ALABAMA - New county record. Morgan County--collected on redbud tree at Hartselle, May 5, 1977, by H. Houston. Determined by M.L. Williams. (McQueen).

GRAPE MEALYBUG (Pseudococcus maritimus) - ALABAMA - New county record. Randolph County--taken on Cornus florida (flowering dogwood) at Wedowee, May 20, 1977. Collected and determined by M.L. Williams. (McQueen).

## MAN AND ANIMALS

### INSECTS

COMMON CATTLE GRUB (Hypoderma lineatum) - OKLAHOMA - Pawnee County--some fully grown larvae emerged from backs of cattle. (Arnold).

---

## HAWAII PEST REPORT

General Vegetables - Infestations by LEAFMINER FLIES (Liriomyza spp.) heavy on 0.4 ha (1 acre) at Wailua Homestead and on 464.5 sq m (5,000 sq ft) at Hanapepe, Kauai. TOMATO PINWORM (Keiferia lycopersicella) infestations on 0.60 ha (1.5 acres) of eggplant heavy at Anahola. Abandoned tomato field, heavily infested, adjacent to planting at Anahola. MELON FLY (Dacus cucurbitae) damaged 10% of young fruits on 0.4 ha of togan at Kapahi. CARMINE SPIDER MITE (Tetranychus cinnabarinus) infestations heavy on 464.5 sq m of pole beans at Hanapepe. (Sugawa, L. Nakahara).

## DETECTION

### NEW COUNTY RECORDS

### INSECTS

AN ARMORED SCALE (Chionaspis nyssae) - ALABAMA - Tallapoosa. (p. 35).

EUROPEAN FRUIT LECANIUM (Lecanium corni) - ALABAMA - Morgan. (p. 35).

GRAPE MEALYBUG (Pseudococcus maritimus) - ALABAMA - Randolph. (p. 35).

PUTNAM SCALE (Diaspidiotus ancyclus) - ALABAMA - Madison. (p. 35).

A SOFT SCALE (Pseudophilippia quaintancii) - ALABAMA - Chambers. (p. 35).

A SOFT SCALE (Pulvinaria acericola) - ALABAMA - Barbour. (p. 35).

WALNUT SCALE (Quadraspidiotus juglansregiae) - ALABAMA - Randolph. (p. 35).

WHITE PEACH SCALE (Pseudaulacaspis pentagona) - ALABAMA - Marshall. (p. 35).

## CORRECTIONS

CPPR 3(1-4):1 - Add to bottom, Reports in this issue are for the weeks ending December 17, 1977, through January 20, 1978, unless otherwise indicated.

## LIGHT TRAP COLLECTIONS

CALIFORNIA - La Grange, 1/13, BL - ARMYWORM (Pseudaletia unipuncta) 1. Stockton, 1/20, 6.1-16°C (43-60°F), BL - Armyworm 2.

# Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff  
Plant Protection and Quarantine Programs, USDA

	<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Destination</u>
<u>Buprestis geometrica</u> Cast. & Gory a metallic woodborer Det. W.F. Barr	adult	in pine crates of cargo	India	Baltimore	IL
<u>Ceratitis capitata</u> (Wied.) Mediterranean fruit fly Det. R.H. Foote	larval	in tangerines from baggage	Italy	Houston	TX
<u>Curculio nucum</u> Linnaeus a weevil Det. D.M. Anderson	larval	in filbert seeds from mail	Russia	Hoboken	MT
<u>Dacus dorsalis</u> Hendel oriental fruit fly Det. B. Hu	adult	in aircraft quarters	Hawaii	Hilo	CA
<u>Edessa</u> sp. a stink bug Det. J.L. Herring	adult	with baggage as food	Mexico	Chicago	IL
<u>Epiphyas postvittana</u> (Walker) a leafroller moth Det. D.M. Weisman	larval	in apricots from cargo	New Zealand	Los Angeles	CA
<u>Thrips imagnis</u> Bagnall a thrips Det. S. Nakahara	adult	on carnation cuttings from baggage	New Zealand	San Francisco	CA
<u>Trogoderma granarium</u> Everts khapra beetle Det. J.M. Kingsolver	larval	in ship's holds	Pakistan	Philadelphia	USA











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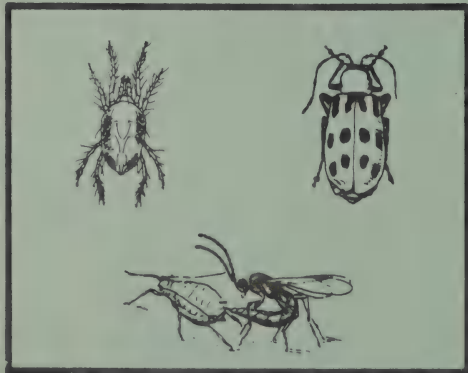
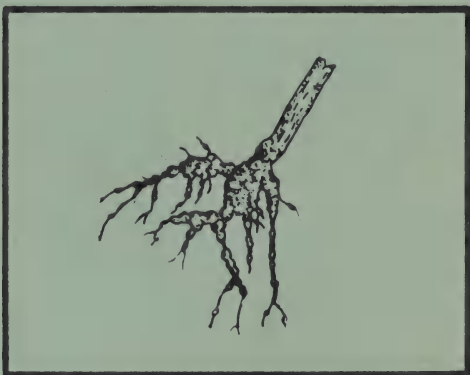


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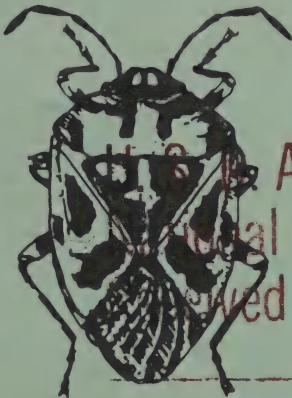
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## COOPERATIVE PLANT PEST REPORT

### HIGHLIGHTS

#### Current Conditions

RANGE CRANE FLY damage significant in foothills surrounding Sacramento Valley, California. (p. 41).

#### Detection

New State records include MAPLE PETIOLE BORER in Kansas (p. 42) and a WEBSPINNING SAWFLY in West Virginia (p. 44).

For new county records see pages 44-45.

#### Special Reports

Descriptions of the Larva, Pupa, and Adult of *Alegoria dilatata*, Associated with Banana Plants in the Neotropics (Coleoptera: Tenebrionidae) (p. 47-51).

The Geographic Distribution of the Frit Fly, *Oscinella frit* (L.) (Diptera: Chloropidae) in Virginia. (p. 52-54).

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## SPECIAL PESTS OF REGIONAL SIGNIFICANCE

### INSECTS

GREENBUG (*Schizaphis graminum*) - TEXAS - Maximum counts per 30 row cm (per row ft) of wheat by county January 4-13: Hutchinson--5, Hansford--20, Ochiltree--0, Sherman--0, Moore--100, Oldham--0, Deaf Smith--5, Castro--200, Parmer--20, Potter--10, Randall--100, Swisher--1,000 on volunteer wheat, Briscoe--200, Hall--0, Floyd--0, Hale--5, Hartley--10, Dallam--80, and Armstrong--100. (Jackman). OKLAHOMA - Ranges per 30 row cm of wheat by county: Garfield--0-40 in several fields and Noble--8-38 in 4 fields. Numbers reduced 40-75% by cold weather in most of these fields since first week of January. (Arnold).

SPOTTED ALFALFA APHID (*Therioaphis maculata*) - NEW MEXICO - Eddy County--adults and nymphs in all 16 fields checked in Artesia and Atoka area. Damage difficult to access: New growth of alfalfa very short and PEA APHID (*Acyrtosiphon pisum*) populations very heavy. Averaged less than 5 spotted alfalfa aphids, mostly nymphs, per alfalfa plant in 8 of 12 fields checked in Carlsbad and Loving area. (Nielsen)

### **CORN, SORGHUM, SUGARCANE**

### INSECTS

EUROPEAN CORN BORER (*Ostrinia nubilalis*) - KANSAS - New county record. Morton County--collected in corn in 2 fields near Richfield, September 18, 1975. Collected and determined by M.L. Shuman. Stalks infested averaged 4% and 8% in 2 fields, respectively. (Bell).

### **TURF, PASTURES, RANGELAND**

### INSECTS

RANGE CRANE FLY (*Tipula simplex*) - CALIFORNIA - Sacramento Valley--this species and a CRANE FLY (*Tipula* sp.) caused significant damage in foothills surrounding area. Status by county: Amador--population heavy on 202 ha (500 acres) near Rancho Seco; Sacramento--population heavy on 80.8 ha (200 acres) (Mahan); Tehama--larvae up to 75-100 per 0.09 sq m (sq ft), damage mild to severe on about 20,000 ha (about 40,000-50,000 acres) of rangeland west of Red Bluff. (Nielsen).

### **FORAGE LEGUMES**

### INSECTS

ALFALFA WEEVIL (*Hypera postica*) - KANSAS - Egg averages per alfalfa stem [length] by county, 1 average for each field, December 28, 1977, to February 2, 1978: Edwards--0.20 [33 cm (13 inches)], 0.04 [30 cm (12 inches)]; Pawnee--0-0.18 [30-35 cm (12-14 inches)] in 2 fields; Comanche--0 [45 cm (18 inches)], 0.14 [30 cm]; Pratt--0 [33 cm]; Cloud--0 [33 cm]; Saline--0.04 [25 cm (10 inches)]; Shawnee--0.06 [40 cm (16 inches)]. (Bell et al.).

THREECORNERED ALFALFA HOPPER (*Spissistilus festinus*) - NEW MEXICO - Eddy County--adults averaged slightly less than 1 per alfalfa plant in fields checked in Artesia and Atoka area. (Nielsen).

PEA APHID (Acyrtosiphon pisum) - NEW MEXICO - Eddy County--winged and wingless adults and nymphs averaged 50+ per plant, very abundant, on alfalfa in Artesia and Atoka area. New growth less than 5 cm (2 inches) tall and literally covered with live aphids and "cast skins." Adults and nymphs in 5 of 12 alfalfa fields checked in Carlsbad and Loving area, but only 2 fields had 10+ adults and nymphs per plant. (Nielsen). CALIFORNIA - Fresno County--this species and BLUE ALFALFA APHID (Acyrtosiphon kondoi) 20 per sweep on alfalfa near Clovis. (Dunnegan).

BROWN WHEAT MITE (Petrobia latens) - NEW MEXICO - Eddy County--averaged 4-30 per alfalfa plant [3-8 cm (1-3 inches) tall] in 5 of 12 fields in Carlsbad and Loving area. Feeding injury on new foliage very pronounced. (Nielsen).

## DECIDUOUS FRUITS AND NUTS

### INSECTS

GREEN PEACH APHID (Myzus persicae) - OREGON - Jackson County--first nymphs hatched January 31 on peach trees at Medford. (Berry).

SAN JOSE SCALE (Quadraspidiotus perniciosus) - ALABAMA - New county record. Cherokee County--collected on Malus sp. (apple) at Centre, September 17, 1977. Collected by K. Manuel. Determined by M.L. Williams. (McQueen).

## ORNAMENTALS

### INSECTS

OLEANDER SCALE (Aspidiotus nerii) - ALABAMA - New county record. Morgan County--collected on Aucuba sp. at Eva, August 12, 1977. Collected by J.D. Harper. Determined by M.L. Williams. (McQueen).

BARNACLE SCALE (Ceroplastes cirripediformis) - ALABAMA - New county record. Baldwin County--collected on Solidago sp. (goldenrod) at Mobile Bay, November 3, 1977. Collected by M.L. Williams, C.H. Ray, and I. Daniels. Determined by M.L. Williams. (McQueen).

AN ARMORED SCALE (Hemiberlesia lataniae) - ALABAMA - New county record. Cherokee County--collected on Hypericum prolificum (shrubby St. Johnswort) at Little River Canyon Park Campground, April 3, 1977. Collected by B.J. Muse. Determined by M.L. Williams. (McQueen).

HAWTHORN LACE BUG (Corythucha cydoniae) - WEST VIRGINIA - New county record. Monongalia County--collected on Cotoneaster sp. at Morgantown, July 21, 1977. Collected by J.E. Weaver. Determined by R.C. Froeschner. Heavy infestations damaged cotoneaster plants. (Weaver).

## FOREST AND SHADE TREES

### INSECTS

MAPLE PETIOLE BORER (Caulocampus acericaulis) - KANSAS - New State record. Riley County--collected from Acer saccharum (sugar maple) on May 8, 1977, in Manhattan. Collected by H.E. Thompson. Determined by D.R. Smith. (Bell).

AN OLETHREUTID MOTH (Proteoteras aesculana) - WEST VIRGINIA - New county record. Jackson County--larvae feeding on Acer saccharinum (silver maple) at Ripley, May 25, 1977. Collected by L.L. Smith. Determined by D.M. Weisman. (Hacker).



WILLOW SCALE (*Chionaspis salicisnigrae*) - ALABAMA - New county record. Jackson County--collected on *Salix nigra* (black willow) at Scottsboro July 31, 1977. Collected by F.W. Eiland. Determined by M.L. Williams. (McQueen).

AN ARMORED SCALE (*Hemiberlesia lataniae*) - ALABAMA - New county record. Baldwin County--collected on *Salix nigra* (black willow) at Mobile Bay, November 3, 1977. Collected by M.L. Williams, C.H. Ray, and I. Daniels. Determined by M.L. Williams. (McQueen).

WHITE PEACH SCALE (*Pseudaulacaspis pentagona*) - ALABAMA - New county records. Jackson County--collected on *Salix nigra* (black willow) at Scottsboro July 31, 1977. Collected by F.W. Eiland. Calhoun County--collected on *Morus* sp. (mulberry) at Anniston, September 10. Collected by K. Manuel. Both determined by M.L. Williams. (McQueen).

## MAN AND ANIMALS

### INSECTS

HORN FLY (*Haematobia irritans*) - FLORIDA - Alachua County--averaged 9 per animal in small beef herd at Gainesville January 25. (Mead)

## BENEFICIAL ORGANISMS & THEIR ENEMIES

### INSECTS

CONVERGENT LADY BEETLE (*Hippodamia convergens*) - NEW MEXICO - Eddy County--adults, larvae, and pupae of mostly this species in fields heavily infested with PEA APHID (*Acyrtosiphon pisum*) in Artesia and Atoka area. Counts in 16 fields ranged from 0 in several alfalfa fields being grazed to an average of 2+ adults and 1 larva per clump of alfalfa in nongrazed fields. (Nielsen).

## FEDERAL AND STATE PROGRAMS

### INSECTS

CITRUS BLACKFLY (*Aleurocanthus woglumi*) - FLORIDA - Broward County--population reduced 97% with use of parasites. (Mead).

SCREWORM (*Cochliomyia hominivorax*) - One case reported from continental United States January 1-14 in Arizona. (Meadows). Total of 287 cases confirmed in portion of Barrier Zone in Republic of Mexico. Total of 1,497 cases reported in Mexico south of Barrier Zone. (Williams, Smith). Number of sterile flies released this period totaled 92,856,250 as follows: Texas 24,920,250, Arizona 35,036,000, California 12,900,000. (Meadows). Total of 60,420,000 sterile flies released within Barrier of Mexico. (Williams, Smith).

## HAWAII PEST REPORT

General Vegetables - CARMINE SPIDER MITE (Tetranychus cinnabarinus) infestations moderate to heavy, 10 per 3 sq cm (sq inch) on 0.8 ha (2 acres) of eggplant and on 0.10 ha (0.25 acre) of cowpea at Kahuku, Oahu. (Lai et al.).

Fruits and Nuts - Infestations of a NYMPHALID BUTTERFLY (Agraulis vanillae vanillae) trace to light on chemically treated, young and mature plantings of lilikoi on 8.0+ ha (20+ acres) at Kahuku. Much frass and few 1st and 2nd instar larvae. Current foliar damage appeared light although (4-week-old damage) on the young planting was moderate with 10-40% defoliation and some girdled vines. A fourfold increase in insecticide applications necessary to protect commercial lilikoi. (L. Nakahara).

Turf and Pasture - GRASS WEBWORM (Herpetogramma licarsisalis) infestations heavy, 20-35 larvae per 0.09 sq m (sq ft) in 40.5+ ha (100+ acres) of Kikuyu-grass pasture at Kahakuloa, Maui. Damage heavy with about 50% defoliation. (Ah Sam).

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### LIGHT TRAP COLLECTIONS

FLORIDA - Gainesville, 1/27-2/1, BL - GRANULATE CUTWORM (Feltia subterranea) 3.

### DETECTION

#### NEW STATE RECORDS

##### INSECTS

MAPLE PETIOLE BORER (Caulocampus acericaulis) - KANSAS - Riley. (p. 42).

A WEBSPINNING SAWFLY (Pamphilius amplexus) - WEST VIRGINIA - Hardy County-- collected in a Survival Security Malaise trap in Old Fields, December 8, 1977. Collected by C.C. Coffman. Determined by D.R. Smith. (Hacker).

#### NEW COUNTY RECORDS

##### INSECTS

AN ARMORED SCALE (Hemiberlesia lataniae) - ALABAMA - Baldwin and Cherokee. (p. 42-43).

BARNACLE SCALE (Ceroplastes cirripediformis) - ALABAMA - Baldwin. (p. 42).

EUROPEAN CORN BORER (Ostrinia nubilalis) - KANSAS - Norton. (p. 41).

FRIT FLY (Oscinella frit) - VIRGINIA - See p. 52-53.

HAWTHORN LACE BUG (Corythucha cydoniae) - WEST VIRGINIA - Monongalia. (p. 42).

OLEANDER SCALE (Aspidiotus nerii) - ALABAMA - Morgan. (p. 42).

AN OLETHREUTID MOTH (Proteoteras aesculana) - WEST VIRGINIA - Monongalia. (p. 42).

SAN JOSE SCALE (Quadraspidiotus perniciosus) - ALABAMA - Cherokee. (p. 42).

A SCARAB (Aphodius lividus) - WEST VIRGINIA - Kanawha County--adults collected in blacklight trap at Charleston, April 20, 1976. Collected by J.E. Weaver. Determined by R.D. Gordon. (Weaver).

A SCARAB (Aphodius ruricola) - WEST VIRGINIA - Hardy County--adults collected in blacklight trap at Moorehead, May 19, 1977. Collected by J.E. Weaver. Determined by O.L. Cartwright. (Weaver).

WHITE PEACH SCALE (Pseudaulacaspis pentagona) - ALABAMA - Calhoun and Jackson. (p. 43).

WILLOW SCALE (Chionaspis salicisnigrae) - ALABAMA - Jackson. (p. 43).

# Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff  
Plant Protection and Quarantine Programs, USDA

	<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Destination</u>
<u>Mamestra brassicae</u> (Linnaeus) cabbage moth Det. D.M. Weisman	larval	with peppers from baggage	Portugal	New York	USA
<u>Nasutitermes</u> sp. a termite Det. R.P. Higgins	adult	in Schomberkia orchids from baggage	Belize	Miami	FL
<u>Opogona sacchari</u> (Bojer) a tineid moth Det. D.M. Weisman	larval	in Cucurbita fruit	Portugal	Boston	CA
<u>Phelyperus distigma</u> Bohemann a weevil Det. D.R. Whitehead	adult	with bromeliads from baggage	Mexico	Brownsville	TX
<u>Sesamia nonagrioides</u> (Le fevre) a noctuid Det. D.M. Weisman	larval	in chestnuts from baggage	Portugal	Kennedy Airport	USA
<u>Stephanitis pyri</u> (Fabricius) pear lace bug Det. R.C. Froeschner	adult	with pine cones from baggage	Italy	Philadelphia	PA
<u>Otala vermiculata</u> (Müller) a helicid snail Det. T. Gray	adult	with baggage for food	Italy	Kennedy Airport	CO
<u>Theba pisana</u> (Müller) white garden snail Det. R. Munkittrick	adult	on container vans of asbestos	South Africa	Houston	TX

Descriptions of the Larva, Pupa, and Adult of Alegoria dilatata,  
Associated with Banana Plants in the Neotropics  
(Coleoptera: Tenebrionidae)

T.J. Spilman <sup>1/</sup>

**ABSTRACT.** The adult, pupa, and larva of Alegoria dilatata are described and illustrated in detail. The species, widely distributed in the Neotropics, is usually associated with banana plants or banana debris but does not cause damage. Specimens are often intercepted at U.S. ports of entry on bananas. These descriptions and illustrations will enable inspectors to identify and dismiss this apparently harmless species.

Alegoria dilatata (Laporte), a beetle widespread in the New World tropics, is usually associated with banana plants. Interceptions of this species at United States ports of entry have decreased in recent years, probably because shipping and packaging practices have changed. Today most bananas, wrapped in protective plastic, arrive much cleaner than in the past. Less debris in banana shipments has resulted in fewer interceptions of this species.

Adults and immatures of dilatata usually live in the narrow spaces between the stem and bases of leaves of the plants. They are commonly found in banana plant debris, such as, stems, leaves, and rotting parts on the ground. This meager biological information was gleaned from labels on museum specimens and from my own collecting experiences. There are no literature reports of the exact habits of this species, what it eats, the time span of each instar, or its effect on the living plant or plant debris. Perhaps it, like many tenebrionids, is a scavenger. In answer to queries, banana experts have assured me that Alegoria dilatata is not a major or minor pest of bananas and is not a transmitter of a banana disease.

Of course, knowing that a certain species is not a pest is immaterial to an inspector at a port or to a collector if identification is impossible. Until now only the adult stage of dilatata has been described. The following descriptions and illustrations of the larva and pupa, as well as the adult, will help correct this lack. In the pupal and larval descriptions Th and Ab are abbreviations for thoracic and abdominal, respectively, and the attached number refers to the numbered segments. Thus, tergum of Th2 means the tergum of the second thoracic segment.

Adult (Fig. 1). Elongate, length 8-11 mm; depressed dorsoventrally, almost flat dorsally; shiny; jet black except legs dark reddish black, tarsi, antennae, and maxillary and labial palpi castaneous. Head broad, moderately short; epistoma deeply incurved medially, with blunt angle laterally, then straight posterolaterally, and finally straight posteriorly to eye; frons with transverse depression; head constricted immediately posterior to eyes; surface with dense fine punctures. Eyes strongly constricted, not protruding. Labrum broad, truncate apically. Mandibles bifid apically. Maxilla with stipes and cardo heavily sclerotized and punctate; palpus with last segment broadened apically, broader in male than in female. Labium with ligula heavily sclerotized, broadly and deeply incurved apically; mentum broad, apically truncate, lateral borders diverging anteriorly, surface flat and with punctures but without setae; not sexually dimorphic; palpus with last segment oval. Antenna clavate, stout, short, very slightly longer in male than in female; article 3 almost twice as long as 2; articles 4 and 5 slightly

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longer than 2; remaining articles progressively broader and more transverse toward apex of antenna, width of 10 approximately twice that of 3; 12 long, rounded apically. Pronotum in dorsal view broadly cordate, widest at mid-length, median length approximately 3/4 width; anterior border broadly incurved; anterior angles rounded; lateral borders excurved, except straight or very weakly incurved in posterior fourth; posterior angles distinct, slightly obtuse; posterior border straight or very weakly bisinuate; all borders with sharp narrow margin, except middle of anterior border with margin vague or absent; surface weakly convex, smooth, punctures small, moderately dense; dorsum-hypomeron angulation acute; hypomeron with dense, short rugae. Scutellum short, broad. Elytra almost parallelsided, base with sharp vertical border, apex rounded, width approximately 3/5 median length; dorsal area with transverse convexity weak and with longitudinal convexity weak or absent; striae impressed laterally and posteriorly but not medially; striae with dense punctures that are connected by fine grooves on medial striae but unconnected on lateral striae; intervals flat medially but strongly convex laterally and posteriorly; pseudoepipleuron narrow through most of length, not attaining elytral apex, ending at midlength of last visible abdominal sternum, with longitudinal groove on ventral border in posterior area for reception of lateral borders of 2nd to 4th visible sterna for tight closure. Prosternum with broad, margined, weakly convex intercoxal process that has broad and knobbed apex. Mesosternum with very deep, broad, V-shape depression for reception of prosternal process; mesocoxal cavity closed laterally. Metasternum long, punctures fine; metacoxae widely separated; fully winged. Abdomen with intercoxal process wide; apically rounded, distinctly margined; sterna with lateral borders distinctly margined, except last visible sternum without margin on lateral or apical borders; lateral surfaces of basal sterna with weak longitudinal rugae, all sterna with fine punctures. Legs stout, stouter in male than in female, especially in pro- and mesofemur; profemur very stout, short; mesofemur moderately stout; metafemur more slender; male with very short setae on ventral surface of femora, sparse on profemur, very dense on basal 2/3 of meso- and metafemur; metafemur strongly arched in male but weakly arched in female; protibia arched, dorsal surface with sharp edge and usually with 2 very large and several small irregular teeth, posterior surface with large and small irregular tubercles and many stout, short setae, apex with stout ventral spine and 2 curved spurs; mesotibia broadened toward apex, dorsal surface and apical area of anterior surface with stout, short setae arising from large muricate projections; tarsi broad, anterior especially so, penultimate article very broad, with lobes extending to midlength of ultimate article; tarsi broader in male than in female.

Pupa (Fig. 2). Antenna: Each article with transverse row of large tubercles. Pronotum: Anterior half of lateral borders with dorsally directed setae. Abdomen: Gin traps formed by opposing posterior and anterior borders of lateral processes; without gin traps on medial parts of segments. Lateral processes (Fig. 3) long, broad; processes of Ab2 through Ab6 with



Fig. 1, Alegoria dilatata, adult, dorsal view



sharp, darkly and narrowly pigmented anterior and posterior borders, anterior border incurved, posterior border excurved; processes of Ab2 through Ab6 with lateral borders having short, acute angle at anterior and posterior ends, having 3 or 4 large, broad, acute teeth on anterior three-fifths, each tooth having moderately long, subapical seta on its posterior surface; processes of Ab1 and Ab7 short, with 2 or 3 large acute teeth; process of Ab1 with anterior border and process of Ab7 with posterior border rounded, not sharp nor pigmented; process of Ab8 with anterior and posterior borders rounded, with lateral border having 3 broad acute teeth. Tergum of Ab9 with 2 broad urogomphi.

Larva (Fig. 4). Orthosomatic, subcylindrical; length approximately 10 mm; with very few setae, almost no surface sculpture except on Ab9. Head capsule broad, relatively broad anteriorly; frontal sutures weak, extending to postoccipital ridge, median suture therefore absent; frons with 2 widely spaced setae on anterior border; genal area with few setae. Eyes composed of 1 or 2 anterior and 1 posterior black spots; eye spots are internal; lenses not visible on cleared head capsule. Clypeus with 2 pairs of setae. Labrum broad, anterior border broadly and evenly excurved; with 2 long medial setae, 4 pairs of long marginal setae. Occipital foramen broad and shallow in dorsal view, broad and moderately deep in ventral view. Antenna (Fig. 5) moderately long, length of article 2 almost 3 times length of 1, 3 small, apex of 2 without special processes. Mandibles stout; area opposite cutting edge convex, light colored, with 1 basodorsal seta and 1 apical seta. Right mandible (Fig. 6) apically trifid, without subapical tooth; mola angulate, bipartite, apical part slanted, with 3 large dull transverse carinae, basal part weakly concave. Left mandible (Fig. 7) apically bifid, with broad subapical tooth; mola straight, apical 2/3 concave, with apical and dorsal borders sharply projecting, dorsal border deeply emarginate apically, basal 1/3 flat. Maxilla (Fig. 8) with mala broad, moderately narrowed apically; setae on medial and apical surface moderately stout, straight; palpus moderately long, articles 2 and 3 subequal in length. Labium broad; prementum 2 apically broadened; prementum 1 very short; ligula parallelsided, very weakly emarginate apically; palpus with short, broad articles. Epipharynx (Fig. 9) with 2 small medial marginal setae and with 4 strong lateral marginal setae on each side; with 4 large anterior sensillae, a transverse row of 4 smaller subanterior sensillae, and a pair of broad unisetiferous sensillae; 2 short posterior lobes; a few vague posterior teeth; 8 posterior sensillae in 2 irregular longitudinal rows; lateral fields with dense medially directed microtrichia. Hypopharynx (Fig. 10) long; ligula with 2 long, broad, subapical setae, with dense microtrichia; anterior medial area flat, simple; anterior paragnatha broadly excurved; hypopharyngeal sclerome in dorsal view with long, acute, medial anterior process and with broad, concave posterior plate that has 3 anterior sharp protruding angles and an elevated posterior border; sclerome in lateral view (Fig. 11) with anterior process ventral and thick apically, and with posterior plate dorsal; posterior paragnatha with microtrichia on short distinct lobes; posterior medial area without special structures. Thorax: Terga of Th1 through Th3 with vague wrinkles and with 1 short seta on each anterior corner and 2 longer setae arranged transversely on each posterior corner; tergum of Th1 with 2 setae just below lateral line; terga of Th2 and Th3 with fine, dark, irregular anterior line on lateral thirds. Abdomen: Tergum of Ab1 through Ab8 with very weakly raised anterior margin, without anterior line; surface of anterior terga with vague wrinkles and punctures, posterior terga with wrinkles disappearing and punctures becoming slightly more distinct, almost dense, but not cribriform; with 4 erect setae near posterior border, long seta near each lateral line, and very small seta on each side of midline; tergum of Ab1 with short seta on each anterior corner adjacent to lateral line; lateral line slender, extending length of segment but vague posteriorly. Spiracles almost circular, separated from lateral line

by distance approximately equal to width of lateral line. Area ventral to lateral line without setae. Tergum of Ab9 (Fig. 12 and 13) conical, dorsally flat or weakly concave, with dense, large cribriform punctures dorsally and laterally, impunctate ventrally but with a few long erect setae; with single, long dorsally curving urogomphus, with large, dorsally curved conical projection; with lateral, dorsally curving, conical projection at midlength on each side of dorsal surface of tergum; between lateral projections and urogomphus and also around urogomphus are many shorter, stout setae, some of which are themselves on small, curved, conical projections. Legs (Fig. 14) slightly smaller anterior to posterior, short, stout; with sparse, long slender setae and short, very stout, broad setae; stout setae distributed as follows: 3 on anterior border of coxa, 6 on ventral surface and 1 on posterior surface of trochanter, 3 on anteroventral surface of femur, 2 on anteroventral surface and 1 on posteroventral surface of tibiotarsus, also 2 on posteroventral surface of meso- and metafemur. Sterna smooth, impunctate, sternum of Ab1 with pair of setae medially on anterior border, sterna Ab1 through Ab8 with seta on each anterior corner and 1 or usually 2 setae on each posterior corner, if 2 setae, then 1 of the pair is longer than the other and both emanate from the same puncture.

#### Acknowledgement

My thanks go to Kate Conway for the illustration of the adult, whole pupa and larva.

See Fig. 2-14 next page.

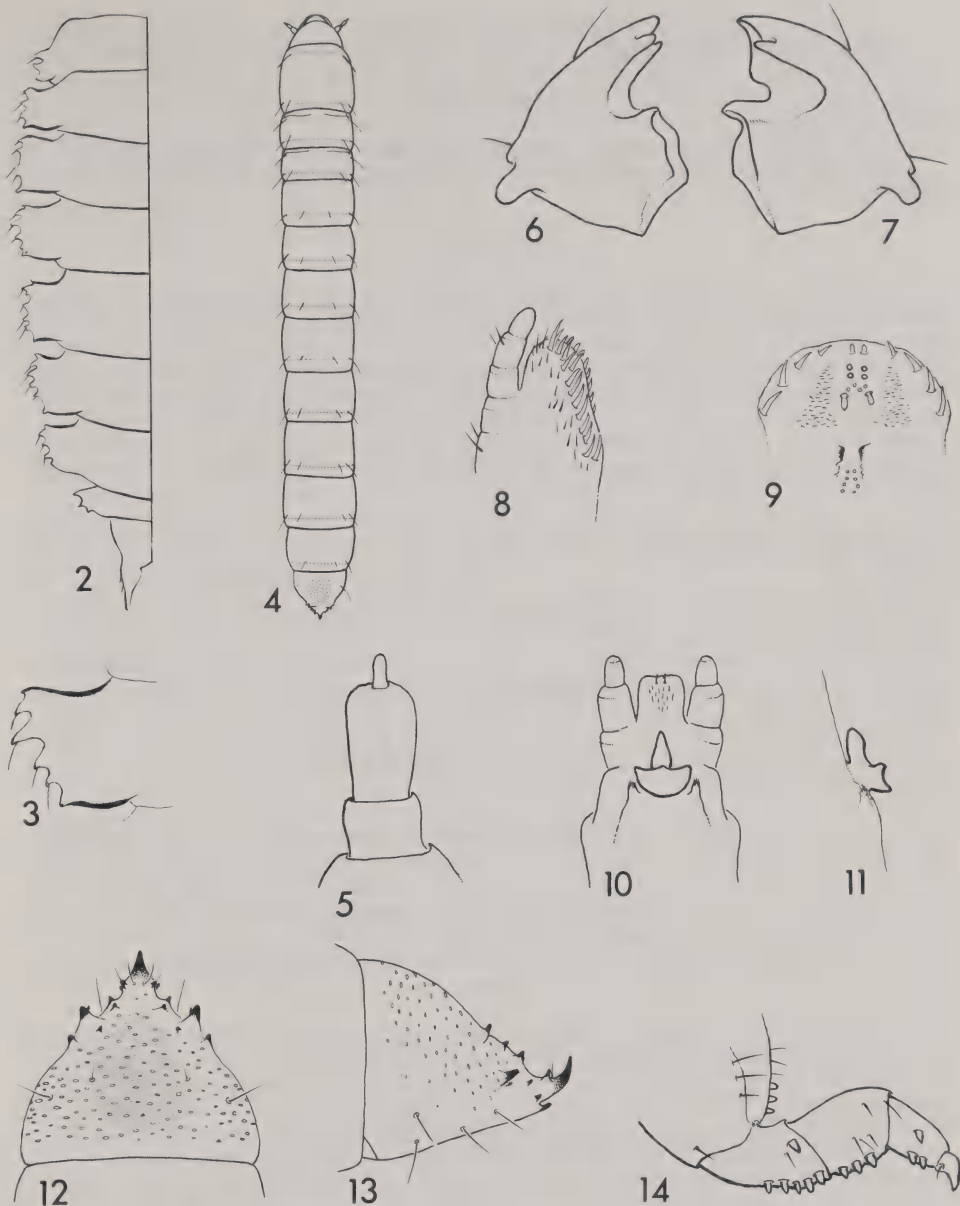


Fig. 2-14. *Alegoria dilatata*. Pupa: 2, abdomen, left dorsal view; 3, lateral process of 4th abdominal tergum, dorsal view. Larva: 4, complete dorsal view; 5, antenna; 6, right mandible, ventral view; 7, left mandible, ventral view; 8, left maxilla, dorsal view; 9, epipharynx, ventral view; 10, hypopharynx, dorsal view; 11, hypopharyngeal sclerome, lateral view; 12, apex of abdomen, dorsal view; 13, apex of abdomen, lateral view; 14, right prothoracic leg, posterior view.

U.S. Dep. Agric., Coop. Plant Pest Rep., 3(6):47-51, 1978.

The Geographic Distribution of the  
Frit Fly, Oscinella frit (L.) (Diptera: Chloropidae) in Virginia

William A. Allen 1/

ABSTRACT. Fifty-six new county records are reported for frit fly in Virginia. All were adult specimens and were collected with a 15-inch sweep net between 1968 and 1971.

The frit fly, Oscinella frit (L.) is a Holarctic pest of cereals, forage grasses, and turf grasses (Aldrich 1920; Collin 1918; Cunliffe 1921, 1922; Perju 1966; Vasina 1929; Jepson and Southwood 1958; Rusanova 1934; Lazarov 1935; Wolf and Savos 1965). In Europe it causes serious grain loss in oats, wheat, maize, barley, and rye (Rubtzov 1935; Strickland 1958; Shapiro 1960). In North America O. frit is not as economically important as it is in Europe because damage is almost entirely confined to the growing point in the stems of grasses and grains. Although Aldrich (1920) had concluded that wheat was the principal host among grains in North America, surveys for O. frit in wheat tillers by Simmonds (1952) produced the following conclusions "in northern Virginia and Maryland, O. frit was rare and was replaced in attacks on wheat plants, which were very tight, by Hippelates dissidens (Tucker), H. bishoppi Sabrosky, O. umbrosa (Loew), O. minor (Adams), O. neocoxendix Sabrosky and O. flavescens (Tucker)." However this is not the case with reed canarygrass, Phalaris arundinacea L., which maintains a moderate endemic infestation of O. frit throughout the year. Wolf (1967) established the importance of frit fly in reed canarygrass when he reported that attacks reduced yields by 0.52 metric ton per hectare in the second harvest. Allen and Pienkowski (1974) describe the biology of O. frit in reed canarygrass in Virginia. In Virginia the larvae damage turf and pasture grasses and the adults are a general nuisance on golf courses.

To determine the extent of the infestation in Virginia, a survey of adults was undertaken between 1968 and 1971. Samples of 100 sweeps with a 15-inch net were collected intermittently from golf courses, parks, cemeteries, and other areas of well-cared-for turf grasses. Because Simmonds (1952) did not indicate from which counties he collected, all of the 56 records listed below are considered by me to be new county records. All specimens were collected and determined by W. A. Allen.

The counties known to be infested and the dates for the collection of the first specimens are: Albemarle, June 10, 1970; Alleghany, July 14, 1971; Amelia, May 13, 1971; Amherst, July 21, 1971; Appomattox, May 7, 1970; Augusta, May 5, 1970; Bath, July 14, 1971; Bedford, May 18, 1971; Bland, May 27, 1970; Botetourt, May 7, 1970; Campbell, May 6, 1970; Caroline, May 19, 1971; Chesterfield, May 12, 1970; Clarke, May 10, 1971; Craig, May 31, 1971; Culpeper, May 12, 1970; Essex, May 19, 1971; Fairfax, July 21, 1970; Fauquier, May 10, 1971; Floyd, August 16, 1971; Franklin, May 7, 1970; Frederick, June 10, 1970; Giles, July 5, 1969; Grayson, August 11, 1970; Greenville, July 7, 1971; Halifax, May 13, 1969; Hanover, May 18, 1971; Henrico, May 18, 1971; Henry, July 7, 1971; King William, May 18, 1971; Loudoun, May 11, 1971; Louisa, May 12, 1970; Lunenburg, May 7, 1970; Madison, May 10, 1971; Mecklenburg, July 7, 1971; Montgomery, May 9, 1968; Nottoway, July 27, 1971; Page,

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May 12, 1970; Pittsylvania, July 7, 1971; Prince Edward, July 6, 1971; Prince George, July 7, 1971; Pulaski, May 26, 1970; Roanoke, May 7, 1970; Rockbridge, May 18, 1970; Rockingham, June 8, 1971; Russell, August 11, 1970; Shenandoah, June 8, 1971; Smyth, August 11, 1970; Southampton, July 7, 1971; Stafford, July 31, 1971; Surry, September 1, 1971; Tazewell, August 11, 1970; Washington, August 11, 1970; Westmoreland, May 19, 1971; and Wythe, May 26, 1970. Specimens were also collected from the Independent City of Suffolk, Nansemond County, on August 19, 1970.

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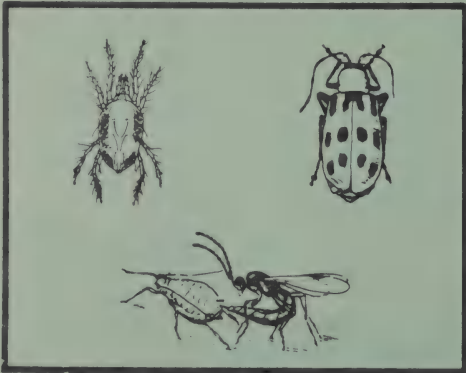
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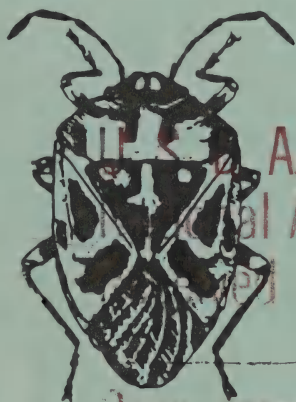
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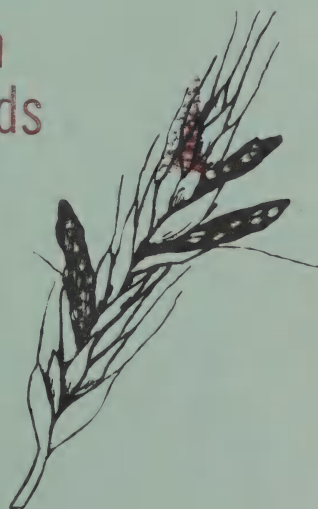
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## COOPERATIVE PLANT PEST REPORT

### HIGHLIGHTS

#### Detection

A THRIPS is new for Puerto Rico (p. 57) and an APHID is new in Utah (p. 59).

For new county records see page 59.

#### Some First Occurrences of the Season

GREEN PEACH APHID nymphs in Oregon.

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Reports in this issue are for the week ending February 10 unless otherwise indicated.

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## **TURF, PASTURES, RANGELAND**

### INSECTS

A SESIID MOTH (Penstemonia clarkei) - CALIFORNIA - Trinity County--reared from larvae found in roots of Linaria dalmatica (dalmatian toadflax) collected at Lewiston. Plants collected in September 1977; adults emerged February 2, 1978. New host record. (Dunkle, Eichlin).

## **FORAGE LEGUMES**

### INSECTS

ALFALFA WEEVIL (Hypera postica) - CALIFORNIA - Fresno County--4th instar larvae, 2 per 20 sweeps on alfalfa at Kerman. (Taff, Dunnegan). OKLAHOMA - Payne County--alfalfa samples collected January 31, averaged 50 eggs per 0.09 sq m (sq ft). (Arnold).

THREECORNERED ALFALFA HOPPER (Spissistilus festinus) - NEW MEXICO - Adults on alfalfa by county: Otero--less than 1 per 5 plants, new growth 5-8 cm (2-3 inches) long, near Tularosa; Dona Ana--averaged about 2 per plant, new growth 8-13 cm (3-5 inches) long, checked in Las Cruces area. (Nielsen).

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - CALIFORNIA - Fresno County--winged adults and gravid alates 10 per 20 sweeps of alfalfa at Kerman. (Taff, Dunnegan).

## **DECIDUOUS FRUITS AND NUTS**

### INSECTS

GREEN PEACH APHID (Myzus persicae) - OREGON - Jackson County--first nymphs hatched January 31 on peach trees at Medford. (Berry).

## **ORNAMENTALS**

### INSECTS

A THRIPS (Frankliniella schultzei) - New for PUERTO RICO - San Juan--3 adults (pale form) collected in flowers of Clitoria ternatea (Asian pigeonwings) at Santurce, September 15, 1977. Collected by C.E. Miller and P. Ellin. Determined by S. Nakahara. Reported from Australia, Asia, Africa, Europe, South America, and North America. In the United States it occurs in Hawaii and Florida. (Miller).

## **MAN AND ANIMALS**

### INSECTS

COMMON CATTLE GRUB (Hypoderma lineatum) - OKLAHOMA - Payne County--averaged 0.5 per head in backs of herd of treated cattle checked. During January this herd averaged 1.4 per head. Many grubs have matured and dropped to ground to pupate. (Arnold).

EAR TICK (Otobius megnini) - TENNESSEE - New county record. Washington County--collected from ear of horse at Jonesboro, December 13, 1977. Collected by P.E. Cassel. Determined by R. Gerhardt. (Gordon, White).

## HOUSEHOLDS AND STRUCTURES

### INSECTS

GIANT HORNET (Vespa crabro germana) - KENTUCKY - New county record. Barren County--found around a tree near residence at Glasgow during summer of 1977. Collected by J.A. Priore. Determined by R.A. Scheibner. (Sloderbeck).

## BENEFICIAL ORGANISMS & THEIR ENEMIES

### INSECTS

AN ICHNEUMONID WASP (Ischnus inquisitorius atricollaris) - MINNESOTA - New county record. Watonwan County--parasitized Ostrinia nubilalis (European corn borer) near St. James, July 26, 1977. Collected by N.C. Bohnert. Determined by R.W. Carlson. (Sreenivasam).

AN ICHNEUMONID WASP (Bathyplectes curculionis) - WISCONSIN - This species, B. anurus, and Microctonus sp. (a braconid wasp) recovered from Hypera postica (alfalfa weevil) in alfalfa during spring 1977 near release sites. Parasitism of 20+% only by B. curculionis and only in these counties: Dane--24%, Kenosha--66%, and Rock--81%. (Lovett).

## FEDERAL AND STATE PROGRAMS

### INSECTS

SCREWORM (Cochliomyia hominivorax) - No cases reported from continental United States January 15-21. (Meadows). Total of 184 cases confirmed in portion of Barrier Zone in Republic of Mexico. Total of 604 cases reported in Mexico south of Barrier Zone. (Williams, Smith). Number of sterile flies released this period totaled 42,112,000 as follows: Texas 25,548,000, Arizona 10,314,000, California 6,250,000. (Meadows). Total of 158,509,500 sterile flies released within Barrier of Mexico. (Williams, Smith).

---

## HAWAII PEST REPORT

General Vegetables - All stages of GREENHOUSE WHITEFLY (Trialeurodes vaporariorum) moderate to heavy on 0.10 ha (0.25 acre) of untreated tomatoes at Sunset Beach, Oahu. Nymphs almost completely covered undersides of older leaves. (Burkhart). Larvae (3-10 per leaf) of DIAMONDBACK MOTH (Plutella xylostella) and damage severe on 185.8 sq m (2,000 sq ft) of mustard cabbage near harvesting stage at Hawaii Kai, Oahu. Heavy infestations (1-4 per leaf) on 185.8 sq m of daikon at same locality. (L. Nakahara).

Turf and Pasture - Defoliation by GRASS WEBWORM (Herpetogramma licarsisalis) 100% on about 2 ha (about 5 acres) of Kikuyugrass pasture. (Miyahira). Adults and larvae of a GEOMETRID MOTH (Semiothisa santaremaria) heavy on 162 ha (400 acres) of koa-haole at Poipu and Kukuia, Kauai. Rapid larval buildup in recent weeks with heavy webbing of leaves. Defoliation complete in spots. Adults very common and plentiful in underbrush and other protected areas. (Sugawa).

## DETECTION

### NEW STATE AND PUERTO RICO RECORDS

#### INSECTS

A THRIPS (Frankliniella schultzei) - PUERTO RICO - San Juan. (p. 57).

AN APHID (Dactynotus russellae) - UTAH - Summit County--collected from unknown host 26 km (16 mi) east of Kamas, August 9, 1977. Collected by G.F. Knowlton. Determined by V.F. Eastop. (Knowlton).

### NEW COUNTY RECORDS

#### INSECTS

EAR TICK (Otobius megnini) - TENNESSEE - Washington. (p. 57).

GIANT HORNET (Vespa crabro germana) - KENTUCKY - Barren. (p. 58).

AN ICHNEUMONID WASP (Ischnus inquisitorius atricollaris) - MINNESOTA - Watonwan. (p. 58).

## CORRECTIONS

CPPR 3(1-4):21 - *Deroceras reticulatum* should be *Agriolimax reticulatus*.

## LIGHT TRAP COLLECTIONS

FLORIDA - Gainesville, 2/2-8, BL - GRANULATE CUTWORM (*Feltia subterranea*) 1.

# Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff  
Plant Protection and Quarantine Programs, USDA

	<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Desti- nation</u>
<u>Caliciopsis maxima</u> (Berk. & Curt.) Hoeh. a fungus Det. F.G. Pollack	perfect	on leaves of <u>Platyserium</u> from cargo	Peru	Miami	FL
<u>Phyllachora engleri</u> Speg. tar leaf spot Det. F. Matthews	perfect	on leaves of <u>Anthurium</u> from cargo	Costa Rica	Miami	MO
<u>Aulacaspis</u> sp. an armored scale Det. S. Nakahara	adult	on leaves and stems of <u>Coelogyne</u> from mail	India	Hoboken	FL
<u>Cryptophlebia illepidia</u> (Butler) a koa seedworm Det. D.M. Weisman	larval	in <u>Macadamia</u> nuts from baggage	Hawaii	Hawaii	CA
<u>Cryptophlebia leucotreta</u> Meyrick false codling moth Det. D.M. Weisman	larval	in sweet oranges from baggage	Nigeria	Kennedy Airport	CA
<u>Eurytoma</u> sp. a eurytomid wasp Det. R.P. Higgins	larval	in leaves of orchids from baggage	Panama	Miami	FL
<u>Orthotomicus erosus</u> (Woll.) a bark beetle Det. R.F. Bollinger	adult	in wood pallets of fiberglass	France	Charleston	SC
<u>Paralecanium</u> sp. a soft scale Det. S. Nakahara	adult nymphal	on orchid plants from cargo	New Guinea	Los Angeles	CA









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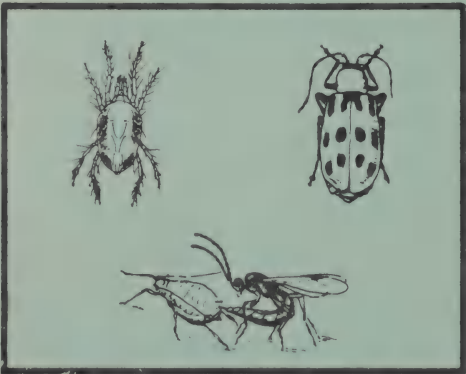
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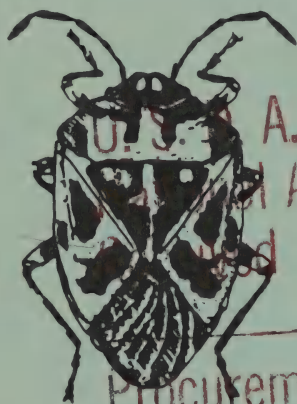
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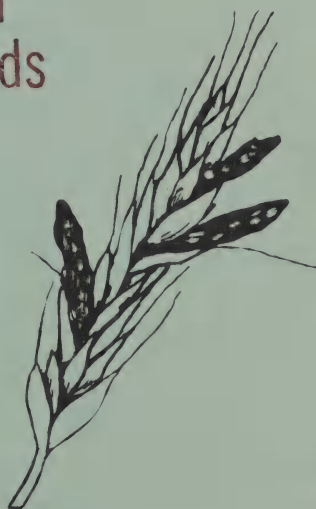


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## **COOPERATIVE PLANT PEST REPORT**

### **HIGHLIGHTS**

#### Detection

A SCARAB is new to Arkansas. (p. 64).

For new county records see page 64.

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Reports in this issue are for the week ending February 17 unless otherwise indicated.

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Pests previously reported under the section "Special Pests of Regional Significance" will now be placed under the headings of their respective hosts.



## CORN, SORGHUM, SUGARCANE

### INSECTS

EUROPEAN CORN BORER (Ostrinia nubilalis) - KANSAS - New county record. Comanche County--larvae infested 10% of sorghum stalks (soft dough stage) in field near Coldwater by September 14, 1977. Collected and determined by G.A. Salsbury. Now in all counties. (Bell).

WESTERN CORN ROOTWORM (Diabrotica virgifera) - KANSAS - New county records from corn.

<u>County</u>	<u>Nearest City</u>	<u>Date</u>	<u>Collected and Determined By</u>
Neosho	Chanute	July 10, 1970	H.L. Brooks
Hodgeman	Hanston	July 29, 1970	K.O. Bell
Ford	Dodge City	August 3, 1971	M.L. Shuman
Stanton	Johnson City	August 5, 1971	M.L. Shuman
Seward	Liberal	August 5, 1971	M.L. Shuman
Montgomery	Independence	August 10, 1971	J.W. Foster
Haskell	Sublette	August 18, 1971	M.L. Shuman
Stevens	Moscow	August 8, 1972	M.L. Shuman
Meade	Missler	August 21, 1972	M.L. Shuman
Clark	Ashland	July 18, 1973	M.L. Shuman
Morton	Richfield	August 15, 1973	M.L. Shuman
Kiowa	Mullinville	July 7, 1975	G.A. Salsbury
Comanche	Coldwater	June 19, 1977	G.A. Salsbury
Kingman	Kingman	July 5, 1977	M.P. Klenda

## SMALL GRAINS

### INSECTS

GREENBUG (Schizaphis graminum) - TEXAS - Counts per 30 row cm (row ft) of wheat by county February 6: Hale--0-20 but on February 9, Archer, Baylor, and Fisher--0-50, Foard, Hardeman, Wilbarger, and Wichita--0-120. (Cronholm, Boring).

AN APHID (Rhopalosiphum padi) - TEXAS - Counts per 30 row cm (row ft) of wheat by county February 6: Hale--0-20 but on February 9, Archer--0-50, Baylor--0-10, Fisher--0-50, Foard--0-70, Hardeman, Wilbarger, and Wichita--0-120. (Cronholm, Boring).

## FORAGE LEGUMES

### INSECTS

ALFALFA WEEVIL (Hypera postica) - FLORIDA - Alachua County--one adult and 18 larvae in 100 sweeps of alfalfa 15 cm (0.5 ft) high at Gainesville. (Mead).

SPOTTED CUCUMBER BEETLE (Diabrotica undecimpunctata howardi) - FLORIDA - Alachua County--adults 43 in 100 sweeps of alfalfa at Gainesville. (Mead).

GREEN CLOVERWORM (Plathypena scabra) - FLORIDA - Alachua County--7 in 100 sweeps of alfalfa at Gainesville. (Mead).

ALFALFA CATERPILLAR (Colias eurytheme) - CALIFORNIA - Monterey County--larvae 1 per 20 sweeps of vetch at Moss Landing. (Oliver).

PEA APHID (Acyrtosiphon pisum) - NEW MEXICO - Dona Ana County--adults and nymphs heavy, 200+ per alfalfa plant, 10-13 cm (4-5 inches) tall, in 1 of 20 fields in Las Cruces area. Most of the other fields had very few adults (mostly winged) and an occasional nymph. (Nielsen). FLORIDA - Alachua County--300+ in 100 sweeps of alfalfa at Gainesville. (Mead).

SPOTTED ALFALFA APHID (Therioaphis maculata) - FLORIDA - Alachua County--6 in 100 sweeps of alfalfa at Gainesville. (Mead).

THREECORNERED ALFALFA HOPPER (Spissistilus festinus) - NEW MEXICO - Dona Ana County--adults averaged less than 2 per alfalfa plant, new growth of 5-13 cm (2-5 inches), mostly north of Las Cruces; lighter south of Las Cruces. (Nielsen).

## BEANS AND PEAS

### INSECTS

SOYBEAN LOOPER (Pseudoplusia includens) - FLORIDA - Dade County--larvae infested 80% of 101-ha (250-acre) field of Phaseolus sp. (pole beans) at Miami. (Martinelli, Clark).

## FEDERAL AND STATE PROGRAMS

### INSECTS

SCREWORM (Cochliomyia hominivorax) - No cases reported from continental United States January 22-28. (Meadows). Total of 117 cases confirmed in portion of Barrier Zone in Republic of Mexico. Total of 521 cases reported in Mexico south of Barrier Zone. (Williams, Smith). Number of sterile flies released this period totaled 50,712,500 as follows: Texas 40,902,500, Arizona 3,250,000, and California 6,560,000. (Meadows). Total of 150,504,000 sterile flies released within Barrier of Mexico. (Williams, Smith).

## DETECTION

### NEW STATE RECORD

### INSECTS

A SCARAB (Phyllophaga aurea) - ARKANSAS - New State record. Washington County--17 adults in light trap at Farmington, December 4, 1977. Collected by W.D. Wylie. Determined by E.P. Rouse. (Mayse).

### NEW COUNTY RECORDS

### INSECTS

EUROPEAN CORN BORER (Ostrinia nubilalis) - KANSAS - Comanche. (p. 63).

WESTERN CORN ROOTWORM (Diabrotica virgifera) - KANSAS - Neosho, Hodgeman, Ford, Stanton, Seward, Montgomery, Haskell, Stevens, Meade, Clark, Morton, Kiowa, Comanche, and Kingman. (p. 63).

## HAWAII PEST REPORT

Fruits and Nuts - Infestations of a NYMPHALID BUTTERFLY (Agraulis vanillae vanillae) light to moderate, 0-5 larvae per 30 cm (ft) of terminal; foliar damage light, 5% on uncultivated Passiflora edulis f. flavicarpa (yellow lilikoi) in Waianae Valley at 30.4 m (100 ft) elevation, Oahu. Infestations and foliar damage light in Halawa Valley at 122 m (400 ft) elevation on P. suberosa (Huehue-haole), the predominant Passiflora. P. foetida, another common species, heavily infested and with heavy foliar damage. Adults active in Halawa Valley. Trichogramma sp. (a mymarid wasp) parasitized 3 of 7 eggs collected February 10 from yellow lilikoi in Manoa Valley. (Murai, L. Nakahara). All stages of BROAD MITE (Polyphagotarsonemus latus) moderate on 2 ha (5 acres) of macadamia (racemes at bud stage) at Pahala and Panaewa, Hawaii Island. Racemes bronzed. (Hirae).

Man and Animals - January surveys for LONGLEGGED ANT (Anoplolepis longipes) on Hawaii Island negative at South Point where infestations heavy in previous years. Very dry conditions prevailed. Infestations moderate to heavy near Pahoehoe. (Matayoshi, Yoshioka).

### LIGHT TRAP COLLECTIONS

FLORIDA - Gainesville, 2/9-15, BL - ARMYWORM (Pseudaletia unipuncta) 2, GRANULATE CUTWORM (Feltia subterranea) 9, VARIEGATED CUTWORM (Peridroma saucia) 1.

# Pest Interceptions of Quarantine Significance at Ports of Entry

## Plant Importation and Technical Support Staff Plant Protection and Quarantine Programs, USDA

<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Destination</u>
<u>Anastrepha ludens</u> (Loew) Mexican fruit fly Det. R. Eads	adult	Mexico	El Paso	CA
<u>Calligrapha polypila</u> Germar a chrysomelid beetle Det. J.M. Kingsolver	adult	with Tillandsia plants from cargo	Los Angeles	CA
<u>Dichrocrocis punctiferalis</u> Guenee yellow peach moth Det. R. Munkittrick	larval	on Pinus sp. bonsai trees	San Francisco	TN
<u>Epicaerus cognatus</u> Sharp potato weevil Det. R. Eads	larval	in potatoes from baggage	El Paso	CA
<u>Leptophobia aripa</u> (Boisduval) a pierid butterfly Det. J.M. Van Valkenburg	pupal	on Aglaonema cuttings	Brownsville	TX
<u>Parlatoria blanchardi</u> (Targ.-Tozz.) parlatoria date scale Det. E.J. Ford	adult	on dates from baggage	Dulles	CA
<u>Phenacaspis dendrobii</u> Kuwana an armored scale Det. S. Nakahara	adult	on orchid plants from cargo	Los Angeles	USA
<u>Trogoderma granarium</u> Everts khapra beetle Det. F. Krim	larval	in wood cases of brassware	New York	NY









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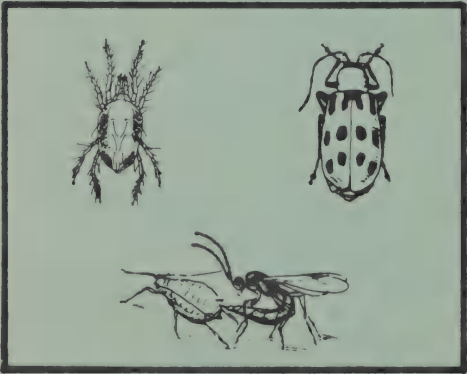
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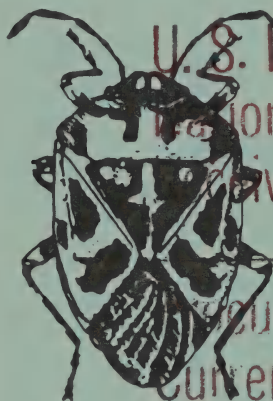
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## COOPERATIVE PLANT PEST REPORT

### HIGHLIGHTS

#### Detection

WINTER TICK is new to Mississippi. (p. 69).

#### Some First Occurrences of the Season

SOUTHERN CORN ROOTWORM in Alabama.

#### Special Reports

A New Pest of Chili Peppers in Colombia (Diptera: Lonchaeidae). (p. 72).

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## **CORN, SORGHUM, SUGARCANE**

### INSECTS

SOUTHERN CORN ROOTWORM (Diabrotica undecimpunctata howardi) - ALABAMA - First of season. Baldwin County--adults emerged from ground trash in large pecan orchard bordering large corn field now being planted. (McKay).

## **SMALL GRAINS**

### INSECTS

GREENBUG (Schizaphis graminum) - TEXAS - Counts per 30 row cm (row ft) of wheat by county February 13: Archer, Baylor, Wichita, and Young--1-40; Foard and Wilbarger--1-100. (Boring). OKLAHOMA - Washita County--0-60 per 30 row cm under ice in 2 wheat fields week ending February 17. (Arnold).

## **FORAGE LEGUMES**

### INSECTS

PEA APHID (Acyrtosiphon pisum) - NEW MEXICO - Dona Ana County--adults and nymphs 300+ per plant, new growth of 10-20 cm (4-8 inches), heavy in alfalfa field near Radium Springs. Many apparently parasitized by a braconid wasp. (Nielsen).

## **DECIDUOUS FRUITS AND NUTS**

### INSECTS

EASTERN TENT CATERPILLAR (Malacosoma americanum) - FLORIDA - Alachua County--larvae began emerging from egg masses on Prunus serotina (black cherry) and Prunus angustifolia (chickasaw plum) at Gainesville, February 23. (Hetrick).

## **ORNAMENTALS**

### INSECTS

AN ARMORED SCALE (Pseudaulacaspis cockerelli) - FLORIDA - Jefferson County--damaged 90% of 1,608 Magnolia grandiflora (southern magnolia), in nursery at Monticello by February 13. (Mead).

ROSE APHID (Macrosiphum rosae) - CALIFORNIA - First of season. Fresno County--stem mothers bearing live young on roses at Fresno. (Dunnegan).

## **FOREST AND SHADE TREES**

### INSECTS

NANTUCKET PINE TIP MOTH (Rhyacionia frustrana) - CALIFORNIA - San Diego County--1 adult emerged from each tip of Monterey pine at Chula Vista this year; infested 50% of old growth in 1977. (Nielsen).

## **MAN AND ANIMALS**

### INSECTS

WINTER TICK (Dermacentor albipictus) - MISSISSIPPI - New State record. Claiborne County--100+ per head on 6 horses, at Hermanville; horses in area 2+ years. Collected by J.H. Jarratt, January 10, 1978. Determined by R.L. Combs. (Anderson).

## FEDERAL AND STATE PROGRAMS

### INSECTS

SCREWORM (*Cochliomyia hominivorax*) - No cases reported from continental United States January 29 to February 4. (Meadows). Total of 53 cases confirmed in portion of Barrier Zone in Republic of Mexico. Total of 889 cases reported in Mexico south of Barrier Zone. (Williams, Smith). Number of sterile flies released this period totaled 91,171,500 as follows: Texas 76,501,500, Arizona 8,740,000, California 5,930,000. (Meadows). Total of 169,970,700 sterile flies released within Barrier of Mexico. (Williams, Smith).

---

### HAWAII PEST REPORT

General Vegetables - Heavy infestations by LEAFMINER FLIES (*Liriomyza* spp.) (50-80% of leaves heavily mined) on 0.10 ha (0.25 acre) of pole beans at Kealakekua and on 464.5 sq m (5,000 sq ft) of tomatoes at Waimea, Hawaii Island. A heavy infestation (5-12 larvae per head) of DIAMONDBACK MOTH (*Plutella xylostella*) on all plants on abandoned 0.10 ha of head cabbage at Waimea. VEGETABLE WEEVIL (*Listroderes costirostris obliquus*) heavy (75-90% of plants, 1-3 larvae per plant) on untreated daikon in 0.4 ha (1 acre) at Waimea. (Yoshioka, L. Nakahara).

Fruits and Nuts - Over 200 adults of a NYMPHALID BUTTERFLY (*Agraulis vanillae vanillae*) feeding on blossoms of 2 large Pluchea odorata (American pluchea) shrubs at 152-m (500-ft) elevation in Tantalus area on Oahu. No larvae and minor feeding damage on Passiflora edulis (lilikoi), P. suberosa (huehue-haole), and P. foetida (running pop) between 76.0-243 m (250-800 ft) elevation in same locality. One of 8 eggs from Passiflora edulis f. flavicarpa (yellow lilikoi) in Waianae Valley parasitized by Trichogramma sp. (a mymarid wasp). (Burkhart, Murai).

### DETECTION

#### NEW STATE RECORD

### INSECTS

WINTER TICK (*Dermacentor albipictus*) - MISSISSIPPI - Claiborne. (p. 69).

#### LIGHT TRAP COLLECTIONS

FLORIDA - Gainesville, 2/16-22, BL - ARMYWORM (*Pseudaletia unipuncta*) 5, BLACK CUTWORM (*Agrotis ipsilon*) 1, GRANULATE CUTWORM (*Feltia subterranea*) 5.  
TEXAS - College Station, 2/12, BL - Armyworm 1.

# Pest Interceptions of Quarantine Significance at Ports of Entry

## Plant Importation and Technical Support Staff Plant Protection and Quarantine Programs, USDA

	<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Destination</u>
<u>Uredo ignavi</u> Arth. a rust Det. F. Matthews	uredial	on leaves of bamboo plants	Thailand	Miami	FL
<u>Ceratitis capitata</u> (Wiedemann) <u>Mediterranean fruit fly</u> Det. R.P. Higgins	larval	in coffee berries from baggage	Costa Rica	Miami	FL
<u>Iridomyrmex</u> sp. an ant Det. D.R. Smith	all	with container van of screws	Japan	Savannah	USA
<u>Kaloterms flavicollis</u> (Fabricius) a termite Det. D.R. Smith	adult	in bracing with drums of rosin	Portugal	Charleston	NC
<u>Niphades</u> sp. a weevil Det. D.R. Whitehead	adult	in wood dunnage with cargo	Japan	San Francisco	CA
<u>Stenomoma catenifer</u> Walsingham avocado seed moth Det. R.L. Haymond	larval	in avocados from baggage	Ecuador	Miami	FL
<u>Tuberculobruchus</u> sp. a bruchid beetle Det. J.M. Kingsolver	adult	in legume pods from cargo	South Africa	New York	NY
<u>Vaginulus occidentalis</u> (Guilting) a veronicellid slug Det. G. Burgess	adult	on Dieffenbachia cuttings from cargo	Mexico	Brownsville	TX

A New Pest of Chili Peppers in Colombia  
(Diptera: Lonchaeidae)

George C. Steyskal <sup>1/</sup>

Dr. Ingeborg Z. de Polania, Jefe Seccional, Programa de Entomologia, Instituto Colombiano Agropecuario, recently submitted some flies for determination with the note that they caused heavy damage to small fruits of hot chilies (*Capsicum annum* L.). The pest was determined as *Silba pseudopendula* Korytkowski, 1971, *Revista Peruana de Entomologia* 14(1):113-114, fig. 43a-b. This species could become a pest in the southern parts of the United States if it were introduced. The species was described from 2 male specimens taken in a McPhail trap placed in plants of "paca" *Inga feuillei* DC (customary abbreviation for Augustin P. de Candolle).

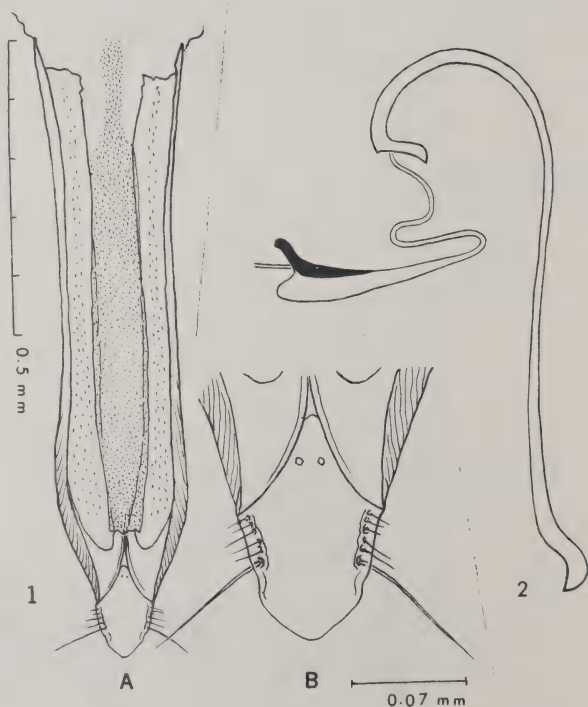
The major lonchaeid pests in the tropics and subtropics are species of the genus *Silba*. Most of these may be recognized by a tuft of long black setae at the fold of the squamae (at the base of the wing). The name *Silba pendula* has been long used to refer to a group of perhaps 40 species, many of which are undescribed and some of which are crop pests. Most, including *S. pseudopendula*, are blue-black shining flies nearly or quite 4 mm long. *S. pseudopendula* is distinguishable from its near relatives only by dissection of the postabdomen of either sex, yielding the parts shown in the accompanying drawings. These include the first data on the female.

The long, slender aedeagus of the male is characteristically a little enlarged and sinuate towards the tip; the ovipositor of the female is short and broad for a species of *Silba* and its tip is of a characteristic shape.

Fig. 1 & 2. *Silba pseudopendula* Kor.  
1A, ovipositor;  
1B, tip of same  
more enlarged; 2,  
aedeagus (male).

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Mail Address: c/o  
U.S. National Museum,  
Washington, DC 20560.

U.S. Dep. Agric.  
Coop. Plant Pest Rep.  
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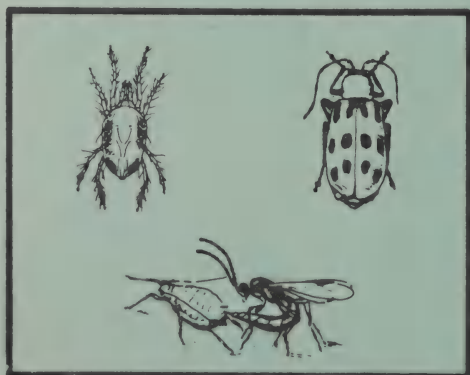
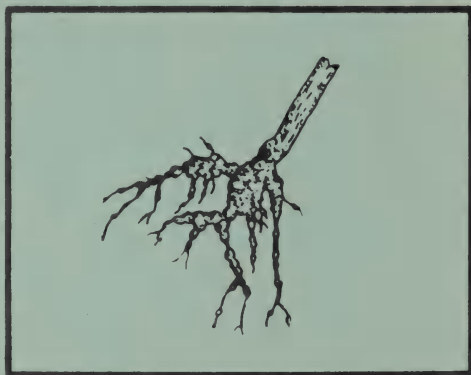


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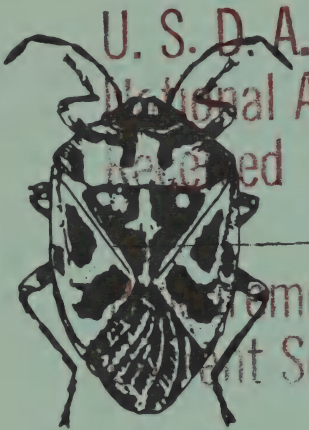
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# Cooperative PLANT PEST REPORT

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This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

*Cooperative Plant Pest Report* supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

*Correspondence should be directed to:*

*CPPR*

New Pest Detection and Survey Staff  
Plant Protection and Quarantine Programs  
Animal and Plant Health Inspection Service  
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## COOPERATIVE PLANT PEST REPORT

### HIGHLIGHTS

#### Detection



KHAPRA BEETLE infestation detected for first time in the eastern United States in New Jersey. (p. 76).

First sign of successful establishment of KLAMATHWEED BEETLE in California. (p. 76).

For new county and island records, see page 77.

New host of STRIPE SMUT for Missouri. (p. 75).

#### Some First Occurrences of the Season

CITRUS RED MITE and KLAMATHWEED BEETLE in California.

#### Special Reports

Collections of Five Species of Lepidoptera in a Light Trap at Waco, Texas, 1953-1972. (p. 79-84).

Reports in this issue are for the week ending March 3 unless otherwise indicated.

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## SMALL GRAINS

### INSECTS

GREENBUG (Schizaphis graminum) - NEW MEXICO - Eddy County--adults and nymphs averaged 5-10 per 30 row cm (row ft) in small grains near Loving. (Riddle). OKLAHOMA - Noble County--ranged 6-15 per 30 row cm in 4 wheat fields week ending February 24. (Arnold).

BLACK CHERRY APHID (Myzus cerasi) - CALIFORNIA - San Joaquin County--nymphs and adults 20-25 per barley stem (late tiller, early boot) in 80-85% of 32 ha (80 acres) at Farmington. (Johnson).

WINTER GRAIN MITE (Penthaleus major) - OKLAHOMA - Noble County--up to 20 per 30 row cm (row ft) in wheat field week ending February 24. (Arnold).

## TURF, PASTURES, RANGELAND

### DISEASES

STRIPE SMUT (Ustilago striiformis) - MISSOURI - New host record for State. Boone County--infected 1 Dactylis glomerata (orchardgrass) plant in greenhouse at Columbia. Plant obtained by cloning field-collected material employed in genetic studies. First observed by W.Q. Loegering. Determined by A. Foudin. (Foudin).

## FORAGE LEGUMES

### INSECTS

ALFALFA WEEVIL (Hypera postica) - NEW MEXICO - Eddy County--1st instar larvae in alfalfa field near Otis. (Riddle). OKLAHOMA - Egg averages per 0.09 sq m (sq ft) of alfalfa collected February 24-25 by county: Stephen--78, Grady--33, Payne--14. (Arnold).

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - UTAH - New county record. Sevier County--collected on alfalfa at Richfield, September 18, 1977, by R. Ronnekamp and M. Kennedy. Determined by G.F. Knowlton. (Knowlton).

PEA APHID (Acyrtosiphon pisum) - NEW MEXICO - Eddy County--averaged 5-20 per crown of alfalfa in Carlsbad area. (Riddle).

## DECIDUOUS FRUITS AND NUTS

### INSECTS

CHERRY FRUIT FLY (Rhagoletis cingulata) - INDIANA - New county record. Warren County--1 adult collected August 4, 1977, from yellow sticky board trap on fence row in Warren Township, 2.4 km (1.5 miles) south of Green Hill. Collected and determined by R.W. Meyer; confirmed by A. Provonsha. (Meyer).

GREEN PEACH APHID (Myzus persicae) - IDAHO - Eggs hatched on peach trees week of February 20 in Parma and Caldwell area, Canyon County, and Twin Falls area, Twin Falls County. (Bishop, Stoltz).

PEAR PSYLLA (Psylla pyricola) - UTAH - Utah County--adults laying eggs in Provo and Orem area. (Davis).

## **CITRUS**

### INSECTS

CITRUS RED MITE (Panonychus citri) - CALIFORNIA - First of season. Fresno County--adults 2 per leaf on citrus February 21 at Clovis. (De Minty, Parmen).

## **MAN AND ANIMALS**

### INSECTS

A BIBIONID FLY (Plecia nearctica) - FLORIDA - Palm Beach County--adults began emerging at Lake Worth, February 27, expected to reach nuisance levels in few weeks. (Genung).

## **BENEFICIAL ORGANISMS & THEIR ENEMIES**

### INSECTS

KLAMATHWEED BEETLE (Chrysolina quadrigemina) - CALIFORNIA - First adults of season. San Diego County--small infestation on Hypericum perforatum (St. Johnswort) at Wynola, first sign of successful establishment after several introductions. (Rys, Nielson).

## **FEDERAL AND STATE PROGRAMS**

### INSECTS

KHAPRA BEETLE (Trogoderma granarium) - First active infestation for eastern United States; last active in U.S. in the West in 1966. NEW JERSEY - Union County--2 larvae (1 live and 1 dead) and 3 cast skins collected in warehouse at Linden by J. Messineo and R. West, February 24, 1978. Determined by F. Krim. First specimens collected from wood borer holes in imported wooden crates containing wooden screens. Additional specimens, 2 live larvae, 4 cast skins, and 1 dead adult, found at large in this 929.03 sq m (10,000 sq ft) warehouse. Fumigation of warehouse and delimiting surveys planned. (Slobodnik, Autry).

SCREWWORM (Cochliomyia hominivorax) - One case reported from continental United States, February 5-18 from Arizona. (Meadows). Total of 286 cases confirmed in portion of Barrier Zone in Republic of Mexico. Total of 907 cases reported in Mexico south of Barrier Zone. (Williams, Smith). Number of sterile flies released this period totaled 97,079,000 as follows: Texas 58,279,000, Arizona 30,980,000, California 7,820,000. (Meadows). Total of 423,104,000 sterile flies released within Barrier of Mexico. (Williams, Smith).



## HAWAII PEST REPORT

General Vegetables - Adults of a LEAFMINER FLY (Liriomyza huidobrensis) heavy; many egg laying marks on outer leaves of young and mature head lettuce on 2 ha (5 acres) at Pulehu, Maui. Larvae confined to older leaves of mature plants. (Miyahira). Infestations of Liriomyza spp. heavy on 0.10 ha (0.25 acre) of tomatoes in Waianae Valley, Oahu. (Burkhart et al.). Moderate to heavy infestations of GREENHOUSE WHITEFLY (Trialeurodes vaporariorum) on 0.10 ha of cucumbers, on 0.2 ha (0.5 acre) of young and fruiting tomatoes at Sunset Beach, and on 2 ha of 7-day-old watermelon (averaged 23 adults per leaf) at Kahuku, Oahu. (Burkhart et al.).

Fruits and Nuts - New island record for a NYMPHALID BUTTERFLY (Agraulis vanillae vanillae). One adult collected at large in community garden at Kahului, Maui, on February 23, 1978, by J. Ah Sam. Determined by N. Miyahira. (Burkhart et al.).

### DETECTION

#### NEW STATE RECORD

#### INSECTS

KHAPRA BEETLE (Trogoderma granarium) - NEW JERSEY - Union County. (p. 76).

#### NEW COUNTY AND ISLAND RECORDS

#### INSECTS

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - UTAH - Sevier. (p. 75).

CHERRY FRUIT FLY (Rhagoletis cingulata) - INDIANA - Warren. (p. 75).

A NYMPHALID BUTTERFLY (Agraulis vanillae vanillae) - HAWAII - Maui. (p. 76).

### LIGHT TRAP COLLECTIONS

CALIFORNIA - Stockton, 2/21, 5.0-20°C (41-68°F), BL - ARMYWORM (Pseudaletia unipuncta) 1. FLORIDA - Gainesville, 2/23-3/1, BL - Armyworm 6, BLACK CUTWORM (Agrotis ipsilon) 1, GRANULATE CUTWORM (Feltia subterranea) 13.

# Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff  
Plant Protection and Quarantine Programs, USDA

	<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Destination</u>
<u>Buprestis geometrica</u> Cast. & Gory a buprestid beetle Det. J.M. Kingsolver	larval	in wood crates of machinery	India	Charleston	SC
<u>Coelosternus cylindricornis</u> (Germar) a weevil Det. D.R. Whitehead	adult	in wood crates of personal effects	Brazil	Monroe	NC
<u>Dacus cucurbitae</u> Coquillett melon fly Det. R.K. Kunishi	larval	in peppers from baggage	Hawaii	Honolulu	CA
<u>Dacus dorsalis</u> Hendel Oriental fruit fly Det. B. Hu	adult	at large in aircraft quarters	Hawaii	Hilo	CA
<u>Epicaerus cognatus</u> Sharp potato weevil Det. B.K. Dozier	larval	in potatoes from baggage	Mexico	San Diego	CA
<u>Megastigmus cryptomeriae</u> Yano a Torymid wasp Det. R. Munkittrick	larval	in <u>Cryptomeria</u> seeds from cargo	Japan	San Francisco	MA
<u>Piazurus</u> sp. a weevil Det. D.R. Whitehead	adult	in palm seed	Guatemala	Miami	FL
<u>Helix aspersa</u> Müller a helicid snail Det. F. Mathews	adult	with baggage	Mexico	Miami	FL

Collections of Five Species of Lepidoptera in a Light Trap  
at Waco, Texas, 1953-1972

C.R. Parencia, Jr. 1/

ABSTRACT. Collections of pink bollworm, Pectinophora gossypiella (Saunders), bollworm, Heliothis zea (Boddie), tobacco budworm, H. virescens (F.), cotton leafworm, Alabama argillacea (Hubner), and cabbage looper, Trichoplusia ni (Hubner), were made in a light trap from 1953 through 1972. Except for pink bollworm, the information obtained with light traps in combination with the knowledge of experienced workers familiar with these pests and factors influencing their populations in cotton fields may be useful in giving cotton growers a few days advance notice of potentially injurious infestations.

---

A light trap was operated at the Waco, Texas, Cotton Insect Research Laboratory from 1953 through 1972. The laboratory ceased operations in June 1973. Only collections of pink bollworm, Pectinophora gossypiella (Saunders), bollworm, Heliothis zea (Boddie), tobacco budworm, H. virescens (F.), cotton leafworm, Alabama argillacea (Hubner), and cabbage looper, Trichoplusia ni (Hubner), are included in this presentation. Data were developed from the laboratory files.

A mercury-vapor-light trap was used from 1953 through 1957 and a blacklight trap in succeeding years. During 1953 and 1954, only pink bollworm moths were recorded in the collections; the other species were recorded in subsequent years. Usually, the trap was operated from April 1 or May 1 until the first killing frost.

Pink Bollworm.--Cowan et al. (1972) stated that "the largest numbers of moths in 17 of 19 years [1953 through 1971] were collected in September, indicating that moth movement increases greatly as the cotton crop matures and immature fruit becomes scarce. Peak collections occurred during August in 1954 and 1963, both drought years when the crop matured early. Collections of moths were low each year from April through mid-July, indicating little movement of moths from overwintering larvae and of moths during the main fruiting period." Data for 1972 did not change that finding, therefore it is not presented.

Bollworm.--Fig. 1 and 2 show that few bollworm moths were collected in April. Collections increased progressively in May, June, and July, with peak collections in August. In September, collections were considerably less, with a further decrease in October. Few moths were collected in November. Yearly totals ranged from 1,036 in 1955 to 30,056 in 1963, with an average of 11,060 for the 18-year period, 1955-1972.

Tobacco budworm.--Results are given in fig. 3 and 4. Few tobacco budworm moths were collected in April and May. Collections increased progressively in June and July, peaking in August and September. In October, collections decreased considerably, and few moths were collected in November. Moths ranged from a total of 41 in 1957 to 2,962 in 1963, with an average of 437 for the 17-year period, 1956-1972. Considerably fewer tobacco budworm than bollworm moths were collected in the trap at any time.

---

1/ Bioenvironmental Insect Control Laboratory, Federal Research, Science and Education Administration, USDA, Stoneville, Mississippi 38776.

Cotton leafworm.--Results are given in fig. 5 and 6. Because of widespread use of insecticides in the upper gulf coast, coastal bend, and lower Rio Grande Valley areas of Texas, the cotton leafworm has not been of economic importance in recent years. The first moths were collected in July, only in 1956, 1957, 1959, 1962-1964, and 1969. Considerable numbers were collected in August, September, and October from 1956 through 1963. In most of these years, population buildup occurred too late to require control measures, and populations were confined to plant regrowth in September and October. In subsequent years moth collections were light.

Cabbage looper.--Results are given in fig. 7 and 8. Moth collections were light in April. Collections increased progressively in May, June, and July, with peak collections in August. In September, collections were considerably less, with a sharp decrease in October. Few moths were collected in November. Numbers ranged from 1,529 in 1966 to 52,808 in 1963, with an average of 18,000 for the 17-year period, 1956-1972. This insect became a minor pest of cotton, causing damage in some fields during the period. However, when rains occurred in June and July, incidence of disease in cabbage looper populations was general and undoubtedly held populations at low levels. A previous injurious infestation of cabbage looper was observed in September 1944 (Parenchia et al. 1957).

Parenchia et al. (1962) stated that "with the exception of the pink bollworm, the information obtained with light traps in combination with the knowledge of experienced workers familiar with the pests and factors influencing their populations in cotton fields may be useful in giving cotton growers a few days advance notice of potentially injurious infestations." These conclusions continue to be pertinent for data accumulated in subsequent years.

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- Parenchia, C.R., Jr., C.B. Cowan, Jr., and J.W. Davis. 1957. Control of cabbage loopers on cotton with boll weevil and bollworm insecticides in central Texas in 1956. J. Econ. Entomol. 50(5):555-668.
- \_\_\_\_\_. 1962. Relationship of Lepidoptera light trap collections to cotton field infestations. J. Econ. Entomol. 55(5):692-695.

See Fig. 1-8 on p. 81-84.

U.S. Dep. Agric.  
Coop. Plant Pest Rep.  
3(10):79-84, 1978



Fig. 1, Annual collections of bollworm moths from a blacklight trap at Waco, Texas.

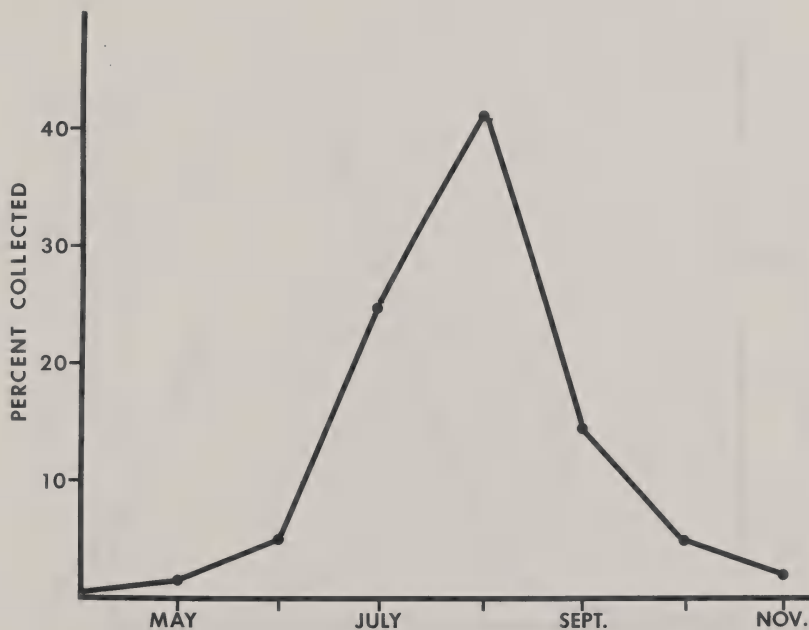


Fig. 2, Monthly collections of bollworm moths from a blacklight trap at Waco, Texas, 18-year summary (1955-1972).

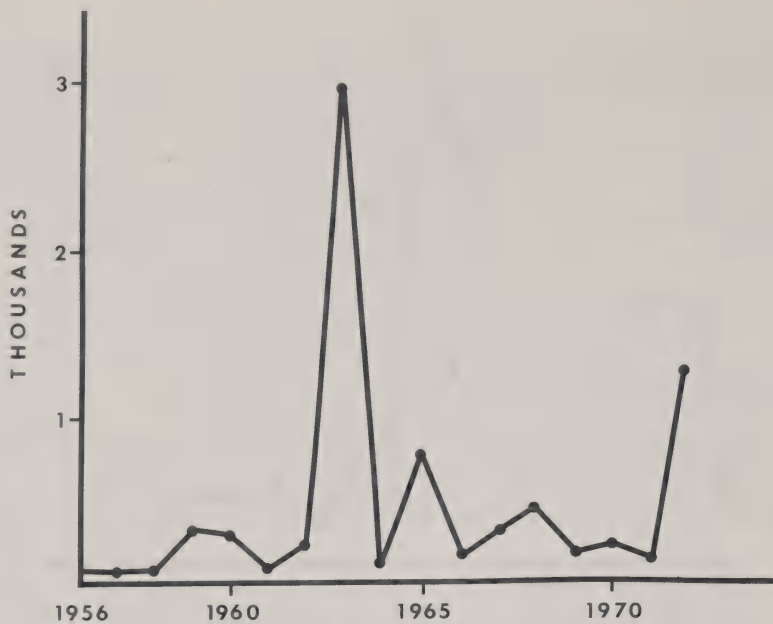


Fig. 3, Annual collections of tobacco budworm moths from a blacklight trap at Waco, Texas.

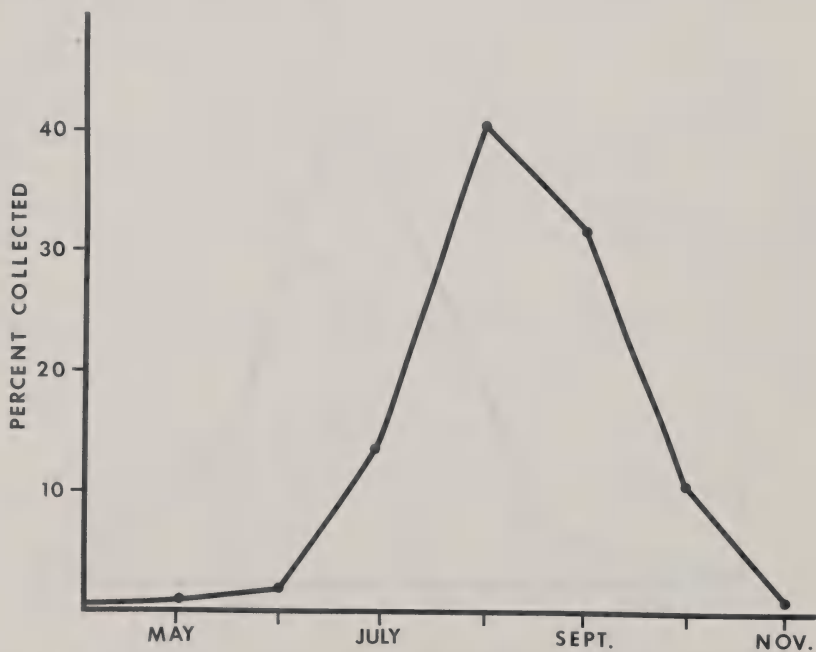


Fig. 4, Monthly collections of tobacco budworm moths from a blacklight trap at Waco, Texas, 17-year summary (1956-1972).

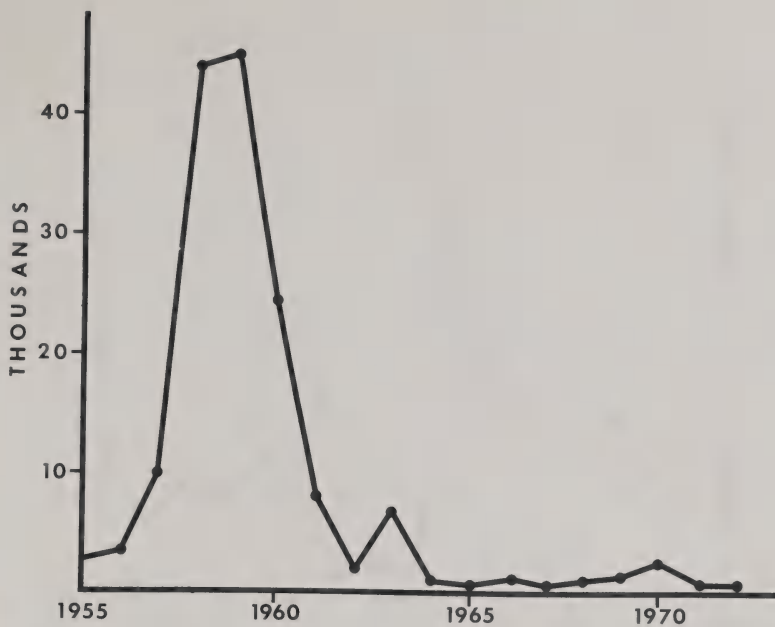


Fig. 5, Annual collections of cotton leafworm moths from a blacklight trap at Waco, Texas.

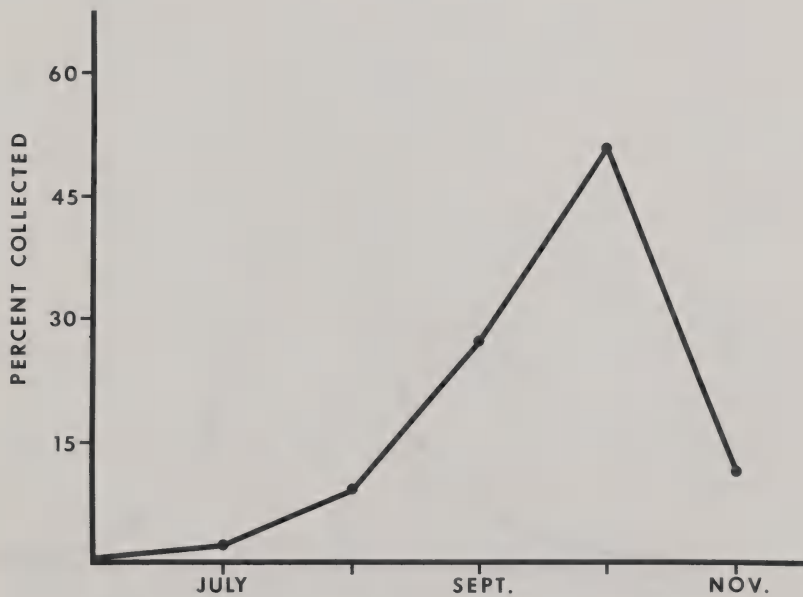


Fig. 6, Monthly collections of cotton leafworm moths from a blacklight trap at Waco, Texas, 18-year summary (1955-1972).



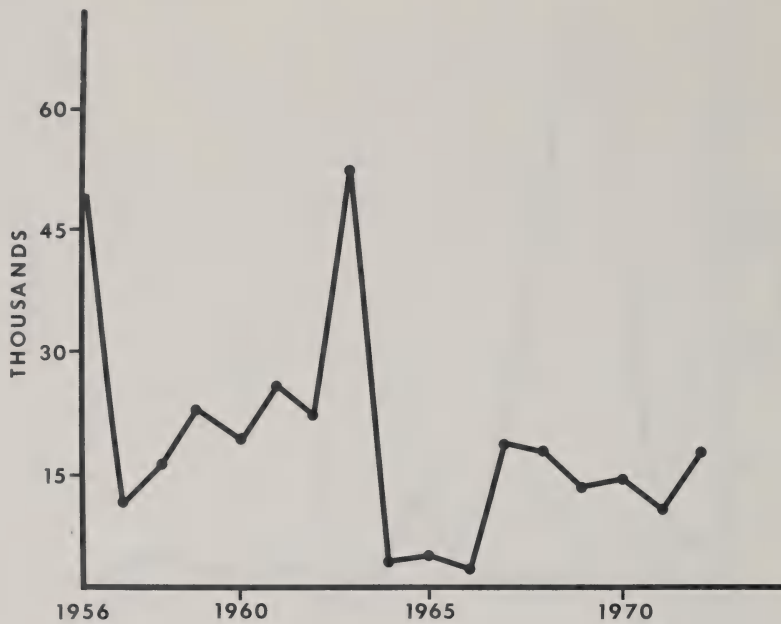


Fig. 7, Annual collections of cabbage looper moths from a blacklight trap at Waco, Texas.

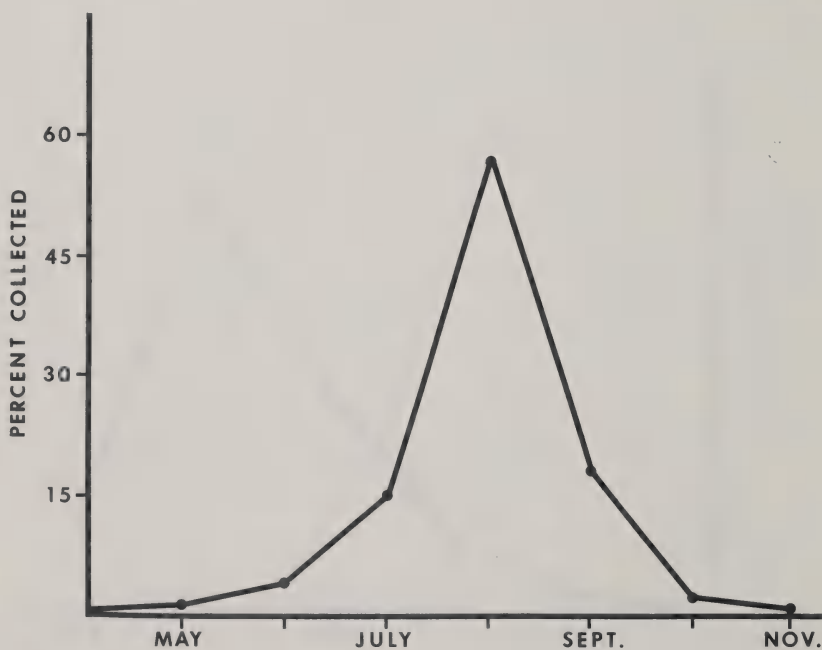


Fig. 8, Monthly collections of cabbage looper moths from a blacklight trap at Waco, Texas, 17-year summary (1956-1972).



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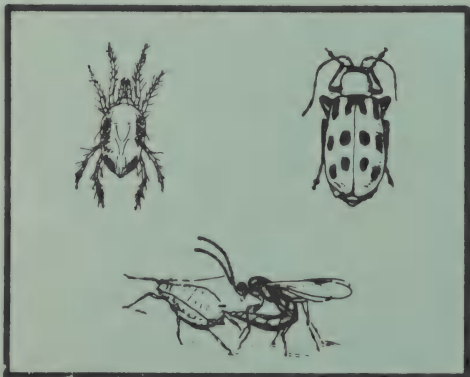
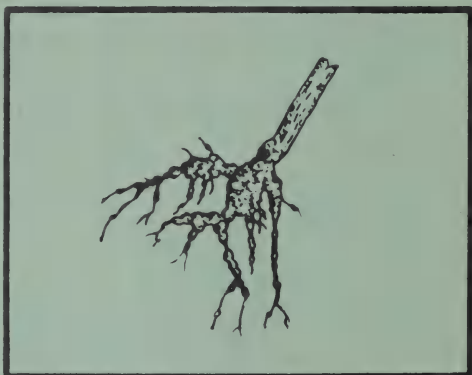
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Vol. 3 No. 11

March 17, 1978

# Cooperative PLANT PEST REPORT



Animal  
and Plant  
Health  
Inspection  
Service

U.S.  
DEPARTMENT  
OF AGRICULTURE



This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

*Cooperative Plant Pest Report* supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

*Correspondence should be directed to:*

*CPPR*

New Pest Detection and Survey Staff  
Plant Protection and Quarantine Programs  
Animal and Plant Health Inspection Service  
U.S. Department of Agriculture  
Federal Building #1  
Hyattsville, Maryland 20782

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## COOPERATIVE PLANT PEST REPORT

### HIGHLIGHTS

#### Detection

● AN APHID probably new to the Western Hemisphere found in Maine and New York. (p. 89).

● A THRIPS in Puerto Rico is new for the United States. (p. 87).

BLACK TWIG BORER is new for U.S. Virgin Islands. (p. 87).

New island record on page 89.

#### Some First Occurrences of the Season

Adult flights of ALFALFA WEEVIL and SPRING CANKERWORM in Kansas.

#### Special Report

Estimated Losses and Production Costs Attributed to Insects and Related Arthropods - 1976. (p. 91-117).

Reports in this issue are for the week ending March 10 unless otherwise indicated.

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## CORN, SORGHUM, SUGARCANE

### INSECTS

A THRIPS (Frankliniella brevicaulis Hood) - PUERTO RICO - New United States record--2 adults collected on Zea mays (corn) at Toa Alta, November 4, 1977, by P. Ellin and J. Torres. Determined by S. Nakahara. This species occurs in Panama, Trinidad and Tobago (Trinidad), Venezuela, Brazil, and Cuba; and has been collected on corn tassels, Musa (banana), Clerodendron, and wild Fabaceae. (C.E. Miller).

### SMALL GRAINS

#### INSECTS

GREENBUG (Schizaphis graminum) - TEXAS - Counts per 30 row cm (row ft) of small grains by county February 27: Fisher--3-16 in some fields, Archer and Baylor--up to 35, and Foard and Wilbarger--10-90. Most field populations in the Rolling Plains area decreased 10-20%. (Boring).

AN APHID (Rhopalosiphum padi) - TEXAS - Maximum per 30 row cm (row ft) of small grains by county February 27: Archer and Baylor--5 and Foard--83. (Boring).

### FORAGE LEGUMES

#### INSECTS

BLACK TWIG BORER (Xylosandrus compactus) - New record for U.S. VIRGIN ISLANDS - 3 adults collected from Cajanus cajan (pigeon pea) at Spring Garden, St. Croix, June 30, 1977, by D. Reeves and G. Grimes. Determined by D.M. Anderson. This oriental species is reported established in Cuba, southeastern United States, and Hawaii. A polyphagous species common on coffee trees. (C.E. Miller).

ALFALFA WEEVIL (Hypera postica) - KANSAS - Finney County--first adult (male) flight of season at Garden City, March 9. (Shuman). CALIFORNIA - San Joaquin County--1st, 2nd, and 3rd instar Hypera sp. larvae, 17 per sweep, feeding on 28-ha (70-acre) field of young alfalfa at Clements. Treatment planned. (Brown).

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - CALIFORNIA - Santa Barbara County--nymphs and adults up to 500 per sweep and 50-100 per leaf in 40.5 ha (100 acres) of alfalfa at Santa Ynez. (Davidson). San Joaquin County--almost all this species, 13 adults per stem on 28-ha (70-acre) field of young alfalfa at Clements. (Brown).

BROWN WHEAT MITE (Petrobia latens) - NEW MEXICO - Luna County--damaged new alfalfa growth near Deming. (Nielsen).

### POTATOES, TOMATOES, PEPPERS

#### INSECTS

POTATO TUBERWORM (Phthorimaea operculella) - CALIFORNIA - Riverside County--larvae of this species and TOMATO PINWORM (Keiferia lycopersicella) damaged 60% of eggplants in 16-ha (40-acre) field at Thermal. Leaves heavily mined by tomato pinworm. Tuberworm larvae on leaves, and pupae on fallen fruit. (Reeves, Shaffer).

## SMALL FRUITS

### INSECTS

STRAWBERRY APHID (Chaetosiphon fragaefolii) - OREGON - Washington County--adults averaged 3-5 per 100 newly formed, immature leaves on about 101 ha (250 acres) of strawberries in the western area February 27 to March 1. Distributed about evenly in most fields. (Collins).

## FOREST AND SHADE TREES

### INSECTS

SPRING CANKERWORM (Paleacrita vernata) - KANSAS - Finney County--first adult (male) flight of season at Garden City, March 9. (Shuman).

## FEDERAL AND STATE PROGRAMS

### INSECTS

SCREWWORM (Cochliomyia hominivorax) - No cases reported from continental United States, February 19-25. (Meadows). Total of 48 cases confirmed in portion of Barrier Zone in Republic of Mexico. Total of 534 cases reported in Mexico south of Barrier Zone. (Williams, Smith). Number of sterile flies released this period totaled 46,124,000 as follows: Texas 28,794,000, Arizona 15,440,000, California 1,890,000. (Meadows). Total of 195,686,000 sterile flies released within Barrier of Mexico. (Williams, Smith).

---

## HAWAII PEST REPORT

Forest and Shade Trees - New island record for EURASIAN PINE APHID (Pineus pini). Collected from a Pinus sp. (pine) tree at Lihue, Kauai, by D. Ikehara, February 13, 1978. Determined by D. Sugawa, confirmed by S. Higa. Second infestation noted on a plant, 1.1 km (0.67 mile) from first find. All P. pini stages heavy on 40.4+ ha (100+ acres) of Pinus sp. in Kula Forest Reserve at Polipoli, Maui. (Hara et al.).

## LIGHT TRAP COLLECTIONS

CALIFORNIA - Stockton, 2/27, 7.2-18°C (45-64°F), BL - ARMYWORM (Pseudaletia unipuncta) 1.

## DETECTION

### NEW WESTERN HEMISPHERE RECORD

#### INSECTS

AN APHID (Coloradoa tanacetina (Walker)) - MAINE - Penobscot County--collected from Tanacetum vulgare (common tansy) at Veazie, August 13, 1977, by C.K. Smith and C.F. Smith. Determined by C.F. Smith. This aphid is known from Europe on common tansy. It is probably noneconomic. (C.F. Smith).

### NEW UNITED STATES RECORD

#### INSECTS

A THRIPS (Frankliniella brevicaulis) - Puerto Rico. (p. 87).

### NEW STATE AND OTHER RECORDS

#### INSECTS

AN APHID (Coloradoa tanacetina) - NEW YORK - Albany County--collected from Tanacetum vulgare (common tansy) at Albany, August 18, 1977, by C.K. Smith and C.F. Smith. Determined by C.F. Smith. (C.F. Smith).

BLACK TWIG BORER (Xylosandrus compactus) - U.S. Virgin Islands - St. Croix Island. (p. 87).

### NEW ISLAND RECORD

#### INSECTS

EURASIAN PINE APHID (Pineus pini) - HAWAII - Kauai. (p. 88).

# Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff  
Plant Protection and Quarantine Programs, USDA

	<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Destination</u>
<u>Uromyces ciceris-arietini</u> (Grog.) a rust Jacz. & Boy. Det. F.C. Pollack	uredial	on stem debris with chick peas	Mexico	San Antonio	IL
<u>Baris</u> sp. a weevil Det. D.R. Whitehead	adult	with cut flowers from cargo	Guatemala	Houston	TX
<u>Cylas formicarius elegantulus</u> (Summers) <u>sweetpotato weevil</u> Det. Iijima	pupal	in sweetpotatoes from baggage	Hawaii	Honolulu	CA
<u>Earias biplaga</u> Walker a noctuid moth Det. D.M. Weisman	larval	in okra from baggage	Nigeria	Kennedy Airport	USA
<u>Lepidosaphes kamakurensis</u> (Kuwana) an armored scale Det. S. Nakahara	adult	on camellia cut- tings from baggage	Japan	Anchorage	USA
<u>Maruca testulalis</u> (Geyer) bean pod borer Det. R.K. Kunishi	larval	in hyacinth-bean from baggage	Hawaii	Honolulu	CA
<u>Megastigmus suspectus</u> Borries a Torymid wasp Det. F. Krim	larval	in Abies nordmanniana seed from cargo	Italy	Hoboken	NY
<u>Parlatoria</u> sp. an armored scale Det. S. Nakahara	adult	on <u>Paphiopedilum</u> plants	Thailand	Los Angeles	CA

2007  
COOPERATIVE PLANT PEST REPORT  
ESTIMATED LOSSES AND PRODUCTION COSTS ATTRIBUTED TO  
INSECTS AND RELATED ARTHROPODS - 1976 C 2

Introduction

Prior to 1966, insect loss estimates were published in the Cooperative Economic Insect Report as individual reports. An attempt has been made for the twelfth year to condense loss estimates from various States into a single report. This gives a more meaningful and better overall picture of the crop losses. The data has been compiled from the crop loss estimates submitted from 15 States. The entomologists submitting the 1976 estimates are listed below.

H. F. McQueen	Alabama
M. A. Mayse	Arkansas
W. P. Tappan	Florida
L. M. Nakahara	Hawaii
K. D. Black	Illinois
R. W. Meyer	Indiana
P. E. Sloderbeck	Kentucky
D. Sreenivasam	Minnesota
R. E. Anderson	Mississippi
W. A. Iselin	New Mexico
C. G. Scholl	North Dakota
D. C. Arnold	Oklahoma
J. A. Jackman	Texas
W. A. Allen	Virginia
O. L. Lovett	Wisconsin

Legend for pest abbreviations and footnotes appear at end of loss tables.

Separates of this report are available from the New Pest Detection and Survey Staff

U.S. Dep. Agric.  
Coop. Plant Pest Rep.  
3(11):91-117, 1978

INSECTS AFFECTING STATE		TOTAL UNITS PRODUCED (1000)	LOSS PER UNIT	YIELD LOSS		SUB-TOTAL LOSS (\$1000)	COST PER UNIT (DOLLARS)	CONTROL COST		TOTAL LOSS (\$1000)
	PEST	ACRES	BUSHELS	LOSS PER UNIT (DOLLARS)	NON-TREATED UNITS (1000)			TREATED UNITS (1000)	SUB-TOTAL (\$1000)	
CORN (GRAIN)										
ALABAMA	COEA	796.00	2.17	5.53	70.00	387.34	1.05	30.00	31.50	418.84
	COLA	796.00	1.55	3.95	70.00	276.67	0.75	30.00	22.50	299.17
	FAAR	796.00	0.62	1.58	70.00	110.67	0.30	30.00	9.00	119.67
	SCOB	796.00	1.86	4.74	70.00	332.01	0.90	30.00	27.00	359.01
ILLINOIS	ARMH	11690.00	3.21	7.70	1.00	7.70	4.50	9.00	40.50	48.20
	COFB	11690.00	3.21	7.70	40.00	308.16	4.50	51.00	229.50	537.66
	CORL	11690.00	12.84	30.82	4.00	123.26	6.25	5120.00	31999.98	32123.24
	COHO	11690.00	10.70	25.68	2.00	51.36	6.00	1105.00	6630.00	6681.36
	CUTS	11690.00	16.05	38.52	54.00	2080.08	8.00	105.00	840.00	2920.08
	EUCH	11690.00	3.21	7.70	3738.67	28802.69	7.50	60.00	450.00	29252.69
	FAAR	11690.00	5.35	12.84	1.00	12.84	5.50	20.00	110.00	122.84
	WHGR	11690.00	4.01	9.63	10.00	96.30	3.13	1280.00	4000.00	4096.30
WIRM	11690.00	4.01	9.63	10.00	96.30	3.13	1280.00	4000.00	4096.30	
INDIANA	CORO	6322.00	4.40	10.12	63.22	639.79	8.00	2655.24	21241.92	21881.71
KENTUCKY	ARMH	1360.00	25.50	59.93	70.00	4194.75	7.00	95.00	665.00	4859.75
	CUTS	1360.00	4.08	9.59	63.00	604.04	6.50	87.00	565.50	1169.54
	EUCH	1360.00	17.34	40.75	70.00	2852.43	9.50	140.00	1330.00	4182.43
	SCOB	1360.00	28.56	67.12	60.00	4026.96	11.00	190.00	2090.00	6116.96
MINNESOTA	ARMH	5600.00	0.05	0.13	50.00	6.37	0.36	6.00	2.16	8.53
	COLA	5600.00	0.01	0.01	50.00	0.71	0.04	6.00	0.24	0.95
	CORO	5600.00	4.25	10.20	560.00	5709.31	3.60	1680.00	6048.00	11757.31
	CUTS	5600.00	0.24	0.57	560.00	317.18	0.20	1680.00	336.00	653.18
	EUCH	5600.00	0.53	1.27	50.00	63.72	3.60	6.00	21.60	85.32
	WHGR	5600.00	0.09	0.23	560.00	126.87	0.08	1680.00	134.40	261.27
	WIRM	5600.00	0.14	0.34	560.00	190.31	0.12	1680.00	201.60	391.91
	COLA	180.00	0.07	0.17	32.40	5.60	0.18	39.60	7.13	12.73
NORTH DAKOTA	CORA	180.00	1.03	2.48	32.40	80.25	2.58	39.60	102.17	182.42
	CUTS	180.00	0.02	0.06	32.40	1.87	0.06	39.60	2.38	4.24
	EUCH	180.00	0.74	1.79	32.40	57.85	1.86	39.60	73.66	131.51
	GRAS	180.00	0.12	0.29	32.40	9.33	0.30	39.60	11.88	21.21
OKLAHOMA	WHGR	180.00	0.05	0.12	32.40	3.73	0.12	39.60	4.75	8.48
	WIRM	180.00	0.36	0.86	32.40	27.99	0.90	39.60	35.64	63.63
	BGRM	91.00	1.98	4.54	27.30	124.07	2.34	40.95	95.72	219.79
	COEA	91.00	0.95	2.18	27.30	59.65	1.12	40.95	45.95	105.60
OKLAHOMA	CORO	91.00	1.19	2.73	27.30	74.56	1.40	40.95	57.43	132.00
	FAAR	91.00	0.11	0.26	27.30	7.16	0.14	40.95	5.75	12.90
	ARMH	180.00	0.07	0.17	32.40	5.60	0.18	39.60	7.13	12.73
	CORA	180.00	1.03	2.48	32.40	80.25	2.58	39.60	102.17	182.42



INSECTS AFFECTING			LOSS		YIELD LOSS		CONTROL COST		TOTAL LOSS (\$1000)	
STAFF	PEST	TOTAL UNITS PRODUCED (1000)	LOSS PER UNIT	BUSHELS	LOSS PER UNIT (DOLLARS)	NON-TREATED UNITS (1000)	COST PER UNIT (DOLLARS)	TREATED UNITS (1000)		SUB-TOTAL (\$1000)
CORN(GRAIN) (CONT'D)										
OKLAHOMA	SCOR WERC	91.00	3.55	8.17	27.30	223.09	4.21	40.95	172.30	395.39
		91.00	0.11	0.26	27.30	7.16	0.14	40.95	5.75	12.90
TEXAS	ARMM COEA SCOB	1551.00	2.42	5.80	31.23	181.20	1.87	1054.47	1969.33	2150.53
		1551.00	1.17	2.80	31.23	87.47	0.90	1054.47	950.71	1038.11
		1551.00	4.75	11.41	31.23	356.14	3.67	1054.47	3870.76	4226.90
VIRGINIA	ARMM EUCH FAWF	615.00	5.53	14.11	58.42	824.24	2.80	206.73	578.86	1403.10
		615.00	4.15	10.58	58.42	618.18	2.10	206.73	434.14	1052.32
		615.00	4.15	10.58	58.42	618.18	2.10	206.73	434.14	1052.32
WISCONSIN	COLA	2180.00	3.40	8.33	195.00	1624.35	5.00	5.00	25.00	1649.35
	CORL	2180.00	5.10	12.49	304.00	3798.48	5.50	1200.00	6600.00	10398.48
	CORO	2180.00	3.40	8.33	40.00	333.20	5.50	25.00	137.50	470.70
	EUCH	2180.00	670.28	1642.18	152.60	250596.12	0.0	0.0	0.0	250596.12
SUBTOTAL						311137.62			96646.31	407783.75
CORN(SILAGE)										
NORTH DAKOTA	COLA	295.00	0.01	0.16	67.30	10.54	0.14	21.20	3.82	14.36
	CORO	295.00	0.18	3.13	67.30	210.78	3.60	21.20	76.32	287.10
	CUTS	295.00	0.00	0.05	67.30	3.51	0.06	21.20	1.27	4.79
	EUCB	295.00	0.02	0.26	67.30	17.57	0.30	21.20	6.36	23.93
	GRAS	295.00	0.03	0.52	67.30	35.13	0.60	21.20	12.72	47.85
	WHGR	295.00	0.00	0.05	67.30	3.51	0.06	21.20	1.27	4.79
	WIMM	295.00	0.06	1.04	67.30	70.26	1.20	21.20	25.44	95.70
VIRGINIA	ARMM	194.00	0.95	19.40	18.43	357.52	2.80	65.21	182.60	540.12
	CUTS	194.00	0.71	14.55	18.43	268.14	2.10	65.21	136.95	405.09
	EUCH	194.00	0.71	14.55	18.43	268.14	2.10	65.21	136.95	405.09
WISCONSIN	CORL	1320.00	0.60	14.57	415.80	6057.54	5.50	508.20	2795.10	8852.64
	CORO	1320.00	0.43	10.41	26.00	270.56	5.50	10.00	55.00	325.56
	EUCH	1320.00	84.77	2051.44	92.40	189552.98	0.0	0.0	0.0	189552.98
SUBTOTAL						197126.19			3433.80	200559.94



INSECTS AFFECTING STATE	PEST	TOTAL UNITS PRODUCED (1000)	LOSS PER UNIT	YIELD LOSS		SUB- TOTAL (\$1000)	COST PER UNIT (DOLLARS)	CONTROL COST		TOTAL LOSS (\$1000)
				LOSS PER UNIT (DOLLARS)	NON- TREATED UNITS (1000)			TREATED UNITS (1000)		
CORN(SWEET)										
		ACRES	CWT							
ALABAMA	COEA	3.00	0.0	0.0	0.0	0.0	28.00	3.00	84.00	84.00
	FAAR	3.00	0.0	0.0	0.0	0.0	4.00	3.00	12.00	12.00
	SGSH	3.00	0.0	0.0	0.0	0.0	8.00	3.00	24.00	24.00
MINNESOTA	COEA	116.50	0.0	0.0	29.13	0.0	0.30	87.38	26.21	26.21
	CORO	116.50	0.0	0.0	29.13	0.0	0.90	87.38	78.64	78.64
	EUCB	116.50	0.0	0.0	29.13	0.0	4.80	87.38	419.40	419.40
WISCONSIN	CORL	133.90	0.31	12.63	0.0	0.0	6.00	66.90	401.40	401.40
	CORO	133.90	0.03	1.21	0.0	97.43	4.95	80.34	397.68	495.12
	EUCB	133.90	0.07	2.83	0.0	227.34	11.55	80.34	927.93	1155.27
SUBTOTAL						324.78			2371.26	2696.03
GRAIN SORGHUM										
		ACRES	BUSHELS							
ARKANSAS	GREG	310.00	4.50	15.75	2.00	31.50	1.62	30.00	48.60	80.10
	SMWM	310.00	1.00	3.50	2.00	7.00	0.36	30.00	10.80	17.80
	SOMI	310.00	4.50	15.75	2.00	31.50	1.62	30.00	48.60	80.10
ILLINOIS	FAAR	59.00	0.21	0.41	0.30	0.12	5.00	0.20	1.00	1.12
	GHEG	59.00	0.93	1.80	1.35	2.43	4.00	0.90	3.60	6.03
	WEBS	59.00	0.62	1.20	0.90	1.08	5.00	0.60	3.00	4.08
NEW MEXICO	EUCB	199.00	1.87	5.63	10.00	56.25	1.63	175.00	284.37	340.63
	GREG	199.00	1.57	4.73	10.00	47.25	1.36	175.00	238.87	286.12
	SCOR	199.00	0.82	1.60	10.00	24.75	0.72	175.00	125.13	149.88
	STBU	199.00	3.22	9.67	10.00	96.75	2.80	175.00	489.13	585.87
OKLAHOMA	BGRM	730.00	0.43	0.88	131.40	115.00	0.20	160.60	32.12	147.12
	COEA	730.00	0.17	0.35	131.40	45.84	0.08	160.60	12.85	58.69
	FAAR	730.00	0.17	0.35	131.40	45.84	0.08	160.60	12.85	58.69
	GREG	730.00	6.86	14.00	131.40	1839.94	3.20	160.60	513.92	2353.86
	SOMI	730.00	0.86	1.75	131.40	229.99	0.40	160.60	64.24	294.23
	YESA	730.00	0.09	0.18	131.40	23.32	0.04	160.60	6.42	29.74
TEXAS	COEA	5800.00	0.25	0.55	577.16	317.70	0.22	3422.84	753.03	1070.72
	FAAR	5800.00	0.25	0.55	577.16	317.70	0.22	3422.84	753.03	1070.72
	GREG	5800.00	2.02	10.46	577.16	6039.15	1.76	3422.84	6024.20	12063.35
	SMWM	5800.00	0.25	0.55	577.16	317.70	0.22	3422.84	753.03	1070.72

INSECTS AFFECTING			TOTAL UNITS PRODUCED (1000) ACRES	LOSS PER UNIT BUSHELS	YIELD LOSS		SUB- TOTAL (\$1000)	COST PER UNIT (DOLLARS)	CONTROL COST		TOTAL LOSS (\$1000)
STATE	PEST	LOSS PER UNIT (DOLLARS)			NON- TREATED UNITS (1000)	TREATED UNITS (1000)			SUB- TOTAL (\$1000)		
GRAIN SORGHUM (CONT'D)											
TEXAS	SOMI	5800.00	2.02	10.46	577.16	6039.15	1.76	3422.84	6024.20	12063.35	
	SPMI	5800.00	0.25	0.55	577.16	317.70	0.22	3422.84	753.03	1070.72	
	SUBTOTAL					15947.62		16955.99		32903.61	
BARLEY											
		ACRES	BUSHEL								
NORTH DAKOTA	APHS	2140.00	2.56	5.90	25.68	151.50	2.76	59.92	165.08	316.58	
	BATH	2140.00	0.51	1.18	25.68	30.30	0.56	59.92	33.26	63.56	
	GRAS	2140.00	0.17	0.39	25.68	10.10	0.19	59.92	11.09	21.19	
	WIRM	2140.00	0.17	0.39	25.68	10.10	0.19	59.92	11.09	21.19	
	SUBTOTAL					202.00		220.51		422.50	
OATS											
		ACRES	BUSHEL								
ARKANSAS	ARMM	70.00	0.0	0.0	0.0	0.0	3.50	7.00	24.50	24.50	
NORTH DAKOTA	APHS	1180.00	1.20	1.62	14.46	23.36	1.22	6.19	7.59	30.95	
	GRAS	1180.00	1.88	2.54	14.46	36.71	1.92	6.19	11.93	48.63	
	WIRM	1180.00	0.34	0.46	14.46	6.67	0.35	6.19	2.17	8.84	
	SUBTOTAL					66.74		46.18		112.92	
WICE											
		ACRES	CWT								
ARKANSAS	GRAS	847.00	0.0	0.0	0.0	0.0	0.60	150.00	90.00	90.00	
	RIWM	847.00	0.0	0.0	0.0	0.0	3.20	150.00	480.00	480.00	
	STBU	847.00	0.0	0.0	0.0	0.0	0.20	150.00	30.00	30.00	
TEXAS	FAAR	508.00	0.09	0.57	0.0	0.0	0.27	454.73	121.96	121.96	
	GRAS	508.00	0.03	0.19	0.0	0.0	0.09	454.73	40.65	40.65	
	RISB	508.00	0.14	0.96	0.0	0.0	0.45	454.73	203.26	203.26	
	RIWM	508.00	1.01	6.70	0.0	0.0	3.13	454.73	1422.84	1422.84	
	STRO	508.00	0.17	1.15	0.0	0.0	0.54	454.73	243.92	243.92	
	SUBTOTAL					0.0		2632.62		2632.62	

INSECTS AFFECTING		TOTAL UNITS PRODUCED (1000)	LOSS PER UNIT	YIELD LOSS		SUB- TOTAL (\$1000)	COST PER UNIT (DOLLARS)	CONTROL COST		SUB- TOTAL (\$1000)	TOTAL LOSS (\$1000)
STATE	PEST			LOSS PER UNIT (DOLLARS)	NON- TREATED UNITS (1000)			TREATED UNITS (1000)			
RYE		ACRES	BUSHEL								
NORTH DAKOTA	ASLE	111.00	0.02	0.05	3.69	0.18	0.04	0.75	0.03	0.21	0.21
	GRAS	111.00	2.02	4.85	3.69	17.89	3.47	0.75	2.60	20.48	20.48
	SUBTOTAL					18.07			2.63	20.69	20.69
SMALL GRAINS		ACRES	BUSHEL								
MINNESOTA	APHS	7081.00	0.27	0.66	145.95	96.12	2.00	354.05	708.10	804.22	804.22
	ARMM	7081.00	0.03	0.08	145.95	12.01	0.25	354.05	88.51	100.53	100.53
	CUTS	7081.00	0.07	0.16	145.95	24.03	0.50	354.05	177.03	201.05	201.05
	GRAS	7081.00	0.27	0.66	145.95	96.12	2.00	354.05	708.10	804.22	804.22
	WIRM	7081.00	0.03	0.08	145.95	12.01	0.25	354.05	88.51	100.53	100.53
TEXAS	APHS	5169.00	0.07	0.20	516.90	105.32	0.09	1812.31	162.02	267.34	267.34
	BRMM	5169.00	0.07	0.20	516.90	105.32	0.09	1812.31	162.02	267.34	267.34
	GREG	5169.00	1.84	5.43	516.90	2808.41	2.42	1812.31	4379.46	7187.87	7187.87
	WIGM	5169.00	0.07	0.20	516.90	105.32	0.09	1812.31	162.02	267.34	267.34
	SUBTOTAL					3364.65			6635.77	10000.42	10000.42
WHEAT		ACRES	BUSHEL								
ARKANSAS	ARMM	710.00	0.0	0.0	0.0	0.0	3.60	75.00	270.00	270.00	270.00
	APMM	1850.00	1.17	3.57	10.00	35.68	4.50	34.00	153.00	188.69	188.69
NORTH DAKOTA	APHS	11655.00	0.74	2.14	293.71	628.97	2.00	755.24	1510.49	2139.46	2139.46
	CUTS	11655.00	0.06	0.17	293.71	50.32	0.16	755.24	120.84	171.16	171.16
	GRAS	11655.00	0.44	1.28	293.71	377.38	1.20	755.24	906.29	1283.67	1283.67
	WHSM	11655.00	0.09	0.26	293.71	75.48	0.24	755.24	181.26	256.73	256.73
	WIRM	11655.00	0.15	0.43	293.71	125.79	0.40	755.24	302.10	427.89	427.89
NEW MEXICO	CUTS	230.00	0.53	1.87	15.00	27.98	2.05	175.00	358.75	386.73	386.73
	FACB	230.00	0.17	0.59	15.00	8.87	0.65	175.00	113.75	122.62	122.62
	GRAS	230.00	0.26	0.91	15.00	13.65	1.00	175.00	175.00	188.65	188.65
	GREG	230.00	0.34	1.18	15.00	17.74	1.30	175.00	227.50	245.24	245.24
OKLAHOMA	ARCU	7800.00	3.00	10.52	624.00	6562.48	1.68	5616.00	9434.88	15997.36	15997.36

INSECTS AFFECTING			YIELD LOSS			CONTROL COST			
STATE	PEST	TOTAL UNITS PRODUCED (1000) ACRES	LOSS PER UNIT (DOLLARS)	NON- TREATED UNITS (1000)	SUB- TOTAL (\$1000)	COST PER UNIT (DOLLARS)	TREATED UNITS (1000)	SUB- TOTAL (\$1000)	TOTAL LOSS (\$1000)
WHEAT (CONT'D)									
OKLAHOMA									
	ARMH	7800.00	0.07	624.00	162.49	0.04	5616.00	235.87	398.36
	RRWH	7800.00	0.23	624.00	492.71	0.13	5616.00	707.62	1200.33
	FAAR	7800.00	0.07	624.00	162.49	0.04	5616.00	235.87	398.36
	GREG	7800.00	4.13	624.00	9026.03	2.31	5616.00	12972.96	21998.99
	SUBTOTAL				17768.06			27906.16	45674.22
WHEAT (HRS)									
	ACHES	ACRES	BUSHELS						
NORTH DAKOTA	WHSS	7900.00	0.49	1.43	2374.50	0.0	237.00	0.0	3397.43
	SUBTOTAL				3397.43			0.0	3397.43
PANGELAND & PASTURE									
		ACRES	A.U.M. <sup>9/</sup>						
NORTH DAKOTA	GRAS	12500.00	0.45	4.59	156.37	1.26	45.00	56.70	775.14
	SUBTOTAL				718.44			56.70	775.14
ALFALFA									
		ACRES	TONS						
ARKANSAS	ALWE	60.00	0.38	18.17	8.00	4.00	40.00	160.00	305.35
ILLINOIS	ALWE POLE	730.00 730.00	1.02 0.27	71.40 19.04	30.00 7.00	6.00 5.00	215.00 31.00	1290.00 155.00	3432.00 288.28
INDIANA	ALWE POLE	400.00 400.00	0.32 0.15	18.46 8.63	181.57 148.80	7.03 4.25	83.16 11.20	584.61 47.60	3935.85 1331.00
KENTUCKY	ALWE POLE	198.00 198.00	0.60 0.30	39.00 19.50	2776.80 1814.67	15.00 <sup>3/</sup> 10.00	118.80 19.80	1782.00 198.00	4558.80 <sup>4/</sup> 2012.67 <sup>4/</sup>
NEW MEXICO	ALCA ALWE PEAP	211.00 211.00 211.00	0.18 0.29 0.35	13.20 21.78 26.40	264.00 435.60 528.00	1.60 2.64 3.20	180.00 180.00 180.00	288.00 475.20 576.00	552.00 910.80 1104.00
	SPAA	211.00	0.06	4.62	92.40	0.56	180.00	100.80	193.20

INSECTS AFFECTING			TOTAL UNITS PRODUCED (1000) ACRES	LOSS PER UNIT (DOLLARS) TONS	YIELD LOSS		SUR- TOTAL (\$1000)	CONTROL COST		TOTAL LOSS (\$1000)	
STATE	PEST	LOSS PER UNIT (DOLLARS)			NON- TREATED UNITS (1000)	COST PER UNIT (DOLLARS)		TREATED UNITS (1000)			
ALFALFA (CONT'D)											
OKLAHOMA	ALWE		500.00	0.55	36.42	42.50	1547.69	6.93	382.50	2650.73	4198.41
	COEA		500.00	0.01	0.40	42.50	17.20	0.08	382.50	29.45	46.65
	FAAR		500.00	0.01	0.81	42.50	34.39	0.15	382.50	58.91	93.30
	GRCL		500.00	0.01	0.81	42.50	34.39	0.15	382.50	58.91	93.30
	PEAP		500.00	0.02	1.62	42.50	68.79	0.31	382.50	117.81	186.66
	SPAA		500.00	0.01	0.40	42.50	17.20	0.08	382.50	29.45	46.65
VIRGINIA	ALWE		80.00	0.72	54.00	13.60	734.40	6.30	39.68	249.98	984.38
	POLE		80.00	0.08	6.00	13.60	81.60	0.70	39.68	27.78	109.38
WISCONSIN	ALWE		3010.00	0.13	9.44	91.00	858.86	5.50	4.00	22.00	880.86
	GRAS		3010.00	0.01	0.42	805.00	341.89	0.45	20.00	9.00	350.89
	PEAP		3010.00	0.00	0.20	805.00	164.61	0.22	20.00	4.50	169.11
	PLBU		3010.00	0.01	0.63	805.00	506.51	0.68	20.00	13.50	520.01
	POLE		3010.00	0.04	2.93	805.00	2355.25	3.15	20.00	63.00	2418.25
SUBTOTAL							19729.47		8992.17		28721.70
I 98 I SOYREANS											
ALABAMA	BRSB		1220.00	0.12	0.85	100.00	84.60	0.55	400.00	220.00	304.60
	COEA		1220.00	0.96	6.77	100.00	676.80	4.40	400.00	1760.00	2436.80
	LECB		1220.00	0.05	0.34	100.00	33.84	0.22	400.00	88.00	121.84
	MERB		1220.00	0.24	1.69	100.00	169.20	1.10	400.00	440.00	609.20
	SGSB		1220.00	0.12	0.85	100.00	84.60	0.55	400.00	220.00	304.60
	SOLO		1220.00	0.19	1.35	100.00	135.36	0.88	400.00	352.00	487.36
	VECA		1220.00	0.72	5.08	100.00	507.60	3.30	400.00	1320.00	1827.60
ARKANSAS	HOLM		4320.00	0.0	0.0	0.0	0.0	2.63	90.00	236.25	236.25
	SOLO		4320.00	0.0	0.0	0.0	0.0	0.88	90.00	78.75	78.75
ILLINOIS	GRAS		7560.00	1.60	11.04	2.00	22.08	4.50	7.00	31.50	53.58
	SPMI		7560.00	3.84	26.50	75.00	1987.20	5.00	125.00	625.00	2612.20
INDIANA	MERB		3280.00	0.0	0.0	0.0	0.0	10.00	35.00	350.00	350.00
MINNESOTA	BELB		3020.00	0.10	0.67	9.80	6.53	0.50	30.20	15.10	21.63
	GRAS		3020.00	0.79	5.00	9.80	49.01	3.75	30.20	113.25	162.26
	GRCL		3020.00	0.16	1.00	9.80	9.80	0.75	30.20	22.65	32.44

INSECTS AFFECTING		TOTAL UNITS PRODUCED (1000) ACRES	LOSS PER UNIT (DOLLARS) BUSHELS	YIELD LOSS		SUB- TOTAL (\$1000)	COST PER UNIT (DOLLARS)	CONTROL COST		TOTAL LOSS (\$1000)
STATE	PEST			LOSS PER UNIT (DOLLARS)	NON- TREATED UNITS (1000)			TREATED UNITS (1000)	SUB- TOTAL (\$1000)	
SOYBEANS (CONT'D)										
MISSISSIPPI	BEAR	3250.00	0.53	47.50	3.46	164.27	0.80	700.00	560.00	724.27
	HOLM	3250.00	1.19	47.50	7.78	369.62	1.80	700.00	1260.00	1629.62
	GRCL	3250.00	0.26	47.50	1.73	82.14	0.40	700.00	280.00	362.14
	S6SB	3250.00	0.13	47.50	0.86	41.07	0.20	700.00	140.00	181.07
	TORU	3250.00	0.40	47.50	2.59	123.21	0.60	700.00	420.00	543.21
	VECA	3250.00	0.13	47.50	0.86	41.07	0.20	700.00	140.00	181.07
NORTH DAKOTA	GRAS	147.00	0.74	3.67	5.01	18.42	3.47	0.0	0.0	18.42
	GRCL	147.00	0.01	3.67	0.05	0.19	0.04	0.0	0.0	0.19
OKLAHOMA	BELB	240.00	0.55	114.00	3.63	413.82	0.40	114.00	45.60	459.42
	COEA	240.00	4.40	114.00	29.04	3310.56	3.20	114.00	364.80	3675.36
	FAAR	240.00	0.11	114.00	0.73	82.76	0.08	114.00	9.12	91.88
	GAME	240.00	0.11	114.00	0.73	82.76	0.08	114.00	9.12	91.88
	THAH	240.00	0.27	114.00	1.81	206.91	0.20	114.00	22.80	229.71
	THBB	240.00	0.05	114.00	0.36	41.38	0.04	114.00	4.56	45.94
TEXAS	COEA	347.00	0.62	15.30	3.81	58.24	4.44	144.70	642.47	700.71
	FAAR	347.00	0.02	15.30	0.10	1.46	0.11	144.70	16.06	17.52
	THAH	347.00	0.04	15.30	0.24	3.64	0.28	144.70	40.15	43.79
	YEAR	347.00	0.10	15.30	0.62	9.46	0.72	144.70	104.40	113.86
VIRGINIA	COEA	398.00	3.07	33.35	20.29	676.74	4.13	232.78	960.22	1636.96
	MEBB	398.00	1.02	33.35	6.76	225.58	1.38	232.78	320.07	545.65
WISCONSIN	TWSM	152.00	1.10	30.00	7.09	212.85	0.0	0.0	0.0	212.85
	SUBTOTAL					9932.71		11211.83		21144.58
PEANUTS		ACRES	POUNDS							
ALABAMA	GRCU	212.00	192.39	47.00	39.63	1862.72	2.52	165.00	415.39	2278.11
	LEAS	212.00	25.41	47.00	5.23	246.02	0.33	165.00	54.86	300.88
	LECH	212.00	83.49	47.00	17.20	808.35	1.09	165.00	180.26	988.61
	REPE	212.00	14.52	47.00	2.99	140.58	0.19	165.00	31.35	171.93
	SOCH	212.00	25.41	47.00	5.23	246.02	0.33	165.00	54.86	300.88
	THRS	212.00	228.69	47.00	47.11	2214.18	2.99	165.00	493.76	2707.94
	WHBE	212.00	156.09	47.00	32.15	1511.26	2.04	165.00	337.01	1848.28
FLORIDA <sup>1/</sup>	COEA	55.00	33.00	0.0	6.77	372.08	5.72	55.00	314.60	686.68



INSECTS AFFECTING STATE	PEST	TOTAL UNITS PRODUCED (11000) ACRES	YIELD LOSS		LOSS PER UNIT (DOLLARS)	CONTROL COST		SUB- TOTAL LOSS (\$1000)	TOTAL LOSS (\$1000)
			LOSS PER UNIT (DOLLARS)	NON- TREATED UNITS (1000)		COST PER UNIT (DOLLARS)	TREATED UNITS (1000)		
PEANUTS (CONT'D)									
FLORIDA <sup>1/</sup>	FAAR	55.00	8.00	0.0		6.76	55.00	371.80	811.53
	GRCU	55.00	1.65	0.0		1.56	55.00	85.80	187.28
	LECR	55.00	12.30	0.0		10.40	55.00	572.00	1248.50
	TOTH	55.00	0.62	0.0		0.52	55.00	28.60	62.43
	VECA	55.00	1.23	0.0		1.04	55.00	57.20	124.85
OKLAHOMA	COEA	117.00	28.91	28.08		1.92	28.08	54.05	865.81
	GRCL	117.00	8.26	28.08		0.55	28.08	15.44	247.38
	GRCU	117.00	6.61	28.08		0.44	28.08	12.36	197.90
	LECR	117.00	20.65	28.08		1.38	28.08	38.61	618.44
	KEPE	117.00	4.13	28.08		0.27	28.08	7.72	123.69
TEXAS	SPMI	117.00	10.74	28.08		0.72	28.08	20.08	321.59
	THRS	117.00	3.30	28.08		0.22	28.08	6.18	98.95
	HEAR	304.00	1.15	52.92		0.18	197.08	35.40	96.41
	RUBU	304.00	2.88	52.92		0.45	197.08	88.49	241.02
	COEA	304.00	6.10	52.92		0.18	197.08	35.40	96.41
VIRGINIA	FAAR	304.00	4.04	52.92		0.63	197.08	123.89	337.42
	LECB	304.00	43.23	52.92		6.73	197.08	1327.34	3615.23
	SPMI	304.00	1.15	52.92		0.18	197.08	35.40	96.41
	YEAR	304.00	6.10	52.92		0.63	197.08	123.89	337.42
	POLE	103.00	6.10	1.00		2.03	102.00	207.57	213.67
COTTON	SOCR	103.00	48.78	1.00		16.28	102.00	1660.56	1709.34
	SPMI	103.00	6.10	1.00		2.03	102.00	207.57	213.67
	SUBTOTAL							6997.41	21148.56
ALABAMA	BOLM	440.00	0.0	0.0		13.00	440.00	5720.00	5720.00
	ROME	440.00	0.0	0.0		19.50	440.00	8579.99	8579.99
	TAPB	440.00	0.0	0.0		6.50	440.00	2860.00	2860.00
	TORU	440.00	0.0	0.0		13.00	440.00	5720.00	5720.00
	TWSM	440.00	0.0	0.0		13.00	440.00	5720.00	5720.00
ARKANSAS	BOLM	950.00	0.0	0.0		2.64	800.00	2108.16	2108.16
	ROME	950.00	0.0	0.0		4.39	800.00	3513.60	3513.60
	PLRU	950.00	0.0	0.0		0.11	800.00	87.84	87.84
	THRS	950.00	0.0	0.0		1.21	800.00	966.24	966.24



INSECTS AFFECTING STATE	PEST	TOTAL UNITS PRODUCED (1000) ACRES	LOSS PER UNIT POUNDS	YIELD LOSS		SUB- TOTAL LOSS (\$1000)	CONTROL COST			TOTAL LOSS (\$1000)
				LOSS PER UNIT (DOLLARS)	NON- TREATED UNITS (1000)		COST PER UNIT (DOLLARS)	TREATED UNITS (1000)	SUB- TOTAL (\$1000)	
COTTON (CONT'D)										
ARKANSAS	TOBU	950.00	0.0	0.0	0.0	0.0	2.64	800.00	2108.16	2108.16
MISSISSIPPI	HOLM	1470.00	73.98	45.35	36.75	1666.54	15.56	1433.25	22302.80	23969.34
	HOWE	1470.00	43.42	26.62	36.75	978.19	9.13	1433.25	13091.45	14089.64
	SPMI	1470.00	2.43	1.49	36.75	54.76	0.51	1433.25	727.37	782.14
	TAPB	1470.00	16.08	9.86	36.75	362.29	3.38	1433.25	4848.68	5210.98
	THRS	1470.00	3.22	1.97	36.75	72.46	0.68	1433.25	969.74	1042.20
OKLAHOMA	TOBU	1470.00	19.30	11.83	36.75	434.75	4.06	1433.25	5818.42	6253.17
TEXAS	HOLM	335.00	13.62	8.42	16.75	140.96	4.08	67.00	273.36	414.32
	HOWE	335.00	24.96	15.43	16.75	258.42	7.48	67.00	501.16	759.58
	CALO	335.00	3.62	2.24	16.75	37.48	1.09	67.00	72.90	110.38
	COFL	335.00	2.27	1.40	16.75	23.49	0.68	67.00	45.56	69.05
	THRS	335.00	0.89	0.55	16.75	9.24	0.27	67.00	18.22	27.46
	HOLM	4500.00	1.27	0.79	321.20	254.70	2.06	2178.80	4486.59	4741.29
	HOWE	4500.00	2.40	1.50	321.20	481.10	3.89	2178.80	8474.67	8955.78
	COFL	4500.00	1.41	0.88	321.20	283.00	2.29	2178.80	4985.10	5268.10
	PIBO	4500.00	0.42	0.26	321.20	84.90	0.69	2178.80	1495.53	1580.43
	THRS	4500.00	0.85	0.53	321.20	169.80	1.37	2178.80	2991.06	3160.86
FLAX	TOBU	4500.00	0.71	0.44	321.20	141.50	1.14	2178.80	2492.55	2634.05
	SUBTOTAL					5453.58			110978.44	116432.25
NORTH DAKOTA	CRIS	462.00	0.04	0.29	17.33	4.95	0.17	5.77	1.01	5.97
	GRAS	462.00	0.76	5.43	17.33	94.14	3.32	5.77	19.20	113.35
	SUBTOTAL					99.10			20.21	119.31
TORACCO										
WISCONSIN <sup>1/</sup>	GRPA	11.10	115.50	87.20	0.0	387.18	7.25	4.44	32.19	419.37
	SUBTOTAL					387.18			32.19	419.37

INSECTS AFFECTING STATE		PEST	TOTAL UNITS PRODUCED (1000)	LOSS PER UNIT	YIELD LOSS		SUB- TOTAL (\$1000)	COST PER UNIT (DOLLARS)	CONTROL COST		TOTAL LOSS (\$1000)
					LOSS PER UNIT (DOLLARS)	NON- TREATED UNITS (1000)			TREATED UNITS (1000)	SUB- TOTAL (\$1000)	
TORACCO (BURLEY)											
KENTUCKY	APHS		190.00	0.0	0.0	0.0	0.0	30.00 <sup>5/</sup>	70.00	2100.00	2100.00
	BUDM		190.00	11115.00	12782.24	0.0	0.0	16.24	38.00	617.12	617.12
	HORS		190.00	6669.00	7669.35	0.0	0.0	9.75	38.00	370.50	370.50
	TOFB		190.00	4446.00	5112.90	0.0	0.0	6.50	38.00	247.00	247.00
	SUBTOTAL						0.0			3334.62	3334.62
TORACCO (FLUF-CURED)											
FLORIDA <sup>1/</sup>	GRPA		13.50	16.98	18.68	0.0	252.23	7.56	13.50	102.06	354.29
	TOBU		13.50	32.25	35.47	0.0	478.91	14.28	13.50	192.78	671.69
	TOHO		13.50	32.25	35.47	0.0	478.91	14.28	13.50	192.78	671.69
	WEVE		13.50	2.79	3.07	0.0	41.51	1.26	13.50	17.01	58.52
	SUBTOTAL						1251.56			504.63	1756.19
TORACCO (SHADE-GROWN)											
FLORIDA <sup>1/</sup>	GRPA		0.33	8.75	33.25	0.0	11.04	25.68	0.33	8.53	19.56
	TOBU		0.33	17.32	65.84	0.0	21.86	50.29	0.33	16.70	38.55
	WEVE		0.33	10.67	40.56	0.0	13.47	31.03	0.33	10.30	23.77
	SUBTOTAL						46.36			35.52	81.89
SUGARBEEETS											
MINNESOTA	CUTS		248.00	0.0	0.0	1.60	0.0	1.10	110.00	121.00	121.00
	GRAS		248.00	0.0	0.0	1.60	0.0	1.10	110.00	121.00	121.00
	SURM		248.00	0.0	0.0	1.60	0.0	7.70	110.00	847.00	847.00
	WEBS		248.00	0.0	0.0	1.60	0.0	0.11	110.00	12.10	12.10
	WIRM		248.00	0.0	0.0	1.60	0.0	0.99	110.00	108.90	108.90
NORTH DAKOTA	APHS		150.00	0.01	0.23	2.58	0.60	0.07	61.92	4.64	5.24
	CUTS		150.00	0.02	0.46	2.58	1.20	0.15	61.92	9.29	10.48
	GRAS		150.00	0.01	0.23	2.58	0.60	0.07	61.92	4.64	5.24
	SURM		150.00	1.04	21.79	2.58	56.23	7.05	61.92	436.54	492.76

INSECTS AFFECTING		TOTAL		LOSS		YIELD LOSS		SUB-		CONTROL COST		TOTAL	
STATE	PEST	UNITS (1000)	ACRES	PER UNIT (DOLLARS)	NON- TREATED UNITS (1000)	LOSS PER UNIT (DOLLARS)	TREATED UNITS (1000)	TOTAL LOSS (\$1000)	COST PER UNIT (DOLLARS)	TREATED UNITS (1000)	SUB- TOTAL LOSS (\$1000)	LOSS (\$1000)	
SUGARBEETS (CONT'D)													
NORTH DAKOTA		WHGR	150.00	0.01	0.23	2.58		0.60	0.07	61.92	4.64	5.24	
		WIRM	150.00	0.01	0.23	2.58		0.60	0.07	61.92	4.64	5.24	
SUBTOTAL								59.81			1674.40	1734.21	
HAY			ACRES	TONS									
ILLINOIS		GRAS	1200.00	0.11	5.73	5.00		28.66	4.50	38.00	171.00	199.66	
MINNESOTA		GRAS	3250.00	0.18	12.48	13.75		171.58	1.80	16.25	29.25	200.83	
		LEAS	3250.00	0.15	10.92	13.75		150.13	1.57	16.25	25.59	175.73	
		PEAP	3250.00	0.07	4.68	13.75		64.34	0.68	16.25	10.97	75.31	
		PLBU	3250.00	0.04	3.12	13.75		42.89	0.45	16.25	7.31	50.21	
TEXAS		ALCA	2150.00	0.00	0.02	1041.34		25.51	0.01	1108.37	16.29	41.81	
		ALWE	2150.00	0.02	0.83	1041.34		867.44	0.66	1108.37	734.19	1601.63	
		ARMM	2150.00	0.04	1.75	1041.34		1824.18	1.40	1108.37	1549.95	3374.12	
		HOLM	2150.00	0.04	1.75	1041.34		1824.18	1.40	1108.37	1549.95	3374.12	
		CUTS	2150.00	0.01	0.34	1041.34		357.18	0.27	1108.37	301.81	658.99	
		FAAR	2150.00	0.07	3.59	1041.34		3737.65	2.88	1108.37	3189.67	6927.32	
		GRAS	2150.00	0.01	0.34	1041.34		357.18	0.27	1108.37	301.81	658.99	
		LEAS	2150.00	0.01	0.29	1041.34		306.16	0.24	1108.37	261.02	567.18	
		WHGR	2150.00	0.01	0.28	1041.34		293.40	0.23	1108.37	252.93	546.33	
SUBTOTAL								10050.46			8401.73	18452.20	
SUNFLOWERS			ACRES	CWT									
MINNESOTA		CUTS	206.00	0.0	0.0	0.0		0.0	1.35	20.60	27.81	27.81	
		SURE	206.00	0.0	0.0	0.0		0.0	1.35	20.60	27.81	27.81	
		SUMO	206.00	0.0	0.0	0.0		0.0	0.90	20.60	18.54	18.54	
		SUSM	206.00	0.0	0.0	0.0		0.0	0.22	20.60	4.63	4.63	
		WEES	206.00	0.0	0.0	0.0		0.0	0.68	20.60	13.91	13.91	
NORTH DAKOTA		HEES	495.00	0.01	0.17	103.95		17.78	0.18	69.30	12.47	30.25	
		CUTS	495.00	0.01	0.17	103.95		17.78	0.18	69.30	12.47	30.25	
		CUTS	495.00	0.01	0.17	103.95		17.78	0.18	69.30	12.47	30.25	
		GRAS	495.00	0.01	0.11	103.95		11.85	0.12	69.30	8.32	20.17	

INSECTS AFFECTING		TOTAL UNITS PRODUCED (1000) ACRES	LOSS PER UNIT CWT	YIELD LOSS			CONTROL COST			TOTAL LOSS (\$1000)
STATE	PEST			LOSS PER UNIT (DOLLARS)	NON- TREATED UNITS (1000)	SUR- TOTAL LOSS (\$1000)	COST PER UNIT (DOLLARS)	TREATED UNITS (1000)	SUB- TOTAL LOSS (\$1000)	
SUNFLOWERS (CONT'D)										
NORTH DAKOTA	MIDS	495.00	0.00	0.06	103.95	5.93	0.06	69.30	4.16	10.08
	SUMO	495.00	0.10	1.14	103.95	118.50	1.20	69.30	83.16	201.66
	WEES	495.00	0.33	3.76	103.95	391.06	3.96	69.30	274.43	665.49
	WHGR	495.00	0.00	0.06	103.95	5.93	0.06	69.30	4.16	10.08
	WIRM	495.00	0.00	0.06	103.95	5.93	0.06	69.30	4.16	10.08
SUBTOTAL						592.51		508.50		1101.01
EGGPLANT										
HAWAII 1/	CASM	0.03	1728.00	514.94	0.0	18.02	130.31	0.03	4.56	22.58
	TOPI	0.03	1728.00	514.94	0.0	18.02	130.31	0.03	4.56	22.58
SUBTOTAL						36.05		9.12		45.17
GREEN PEPPERS										
HAWAII 1/	BRMI	0.05	415.00	136.54	0.0	6.83	38.43	0.05	1.92	8.75
	CASM	0.05	622.50	204.80	0.0	10.24	57.65	0.05	2.88	13.12
	COEA	0.05	415.00	136.54	0.0	6.83	38.43	0.05	1.92	8.75
	PRWL	0.05	2282.50	750.94	0.0	37.55	211.38	0.05	10.57	48.12
	SUBTOTAL					61.44		17.29		78.74
POTATOES										
ALABAMA	APHS	19.70	0.0	0.0	0.0	0.0	5.52	19.70	108.84	108.84
	EUCB	19.70	0.0	0.0	0.0	0.0	1.63	19.70	32.01	32.01
	POFB	19.70	0.0	0.0	0.0	0.0	1.63	19.70	32.01	32.01
	WIRM	19.70	0.0	0.0	0.0	0.0	4.22	19.70	83.23	83.23
MINNESOTA	APHS	75.00	0.09	0.23	3.75	0.88	0.63	71.25	44.53	45.41
	COPB	75.00	0.03	0.09	3.75	0.35	0.25	71.25	17.81	18.16
	CUTS	75.00	0.09	0.23	3.75	0.88	0.63	71.25	44.53	45.41
	FLBE	75.00	0.14	0.38	3.75	1.41	1.00	71.25	71.25	72.66
	POLE	75.00	1.04	2.82	3.75	10.57	7.50	71.25	534.37	544.95

INSECTS AFFECTING		TOTAL UNITS PRODUCED (1000) ACRES	LOSS PER UNIT CMT	YIELD LOSS		SUB- TOTAL (\$1000)	COST PER UNIT (\$1000)	CONTROL COST		TOTAL LOSS (\$1000)
STATE	PEST			LOSS PER UNIT (\$1000)	NON- TREATED UNITS (1000)			TREATED UNITS (1000)	SUB- TOTAL (\$1000)	
POTATOES (CONT'D)										
MINNESOTA	WIRM	75.00	0.35	0.94	3.75	3.52	2.50	71.25	178.12	181.65
NORTH DAKOTA	APHS	121.00	0.07	0.18	14.30	2.60	0.09	57.20	5.43	8.04
	COPR	121.00	1.75	4.55	14.30	65.06	2.38	57.20	135.85	200.91
	CUTS	121.00	0.21	0.55	14.30	7.81	0.28	57.20	16.30	24.11
	FLBE	121.00	3.50	9.10	14.30	130.13	4.75	57.20	271.70	401.83
	LEAS	121.00	0.84	2.18	14.30	31.23	1.14	57.20	65.21	96.44
	WIRM	121.00	0.63	1.64	14.30	23.42	0.86	57.20	48.91	72.33
WISCONSIN <sup>1/</sup>	FLBE	53.00	0.17	0.61	0.0	32.28	2.22	53.00	117.53	149.81
	POAP	53.00	0.12	0.41	0.0	21.52	1.48	53.00	78.36	99.87
	POLE	53.00	2.61	9.14	0.0	484.16	33.26	53.00	1762.99	2247.15
	SUBTOTAL					815.83			3649.00	4464.83
TOMATOES		ACRES	CMT							
ALABAMA	APHS	8.50	0.0	0.0	0.0	0.0	12.00	8.50	102.00	102.00
	CALO	8.50	0.0	0.0	0.0	0.0	3.00	8.50	25.50	25.50
	FLBE	8.50	0.0	0.0	0.0	0.0	9.00	8.50	76.50	76.50
	LEFL	8.50	0.0	0.0	0.0	0.0	6.00	8.50	51.00	51.00
	TOFR	8.50	0.0	0.0	0.0	0.0	27.00	8.50	229.50	229.50
	WBBE	8.50	0.0	0.0	0.0	0.0	3.00	8.50	25.50	25.50
ARKANSAS	TOFR	1.80	0.0	0.0	0.0	0.0	57.00	1.60	91.20	91.20
HAWAII <sup>1/</sup>	LEFL	0.20	2350.00	620.40	0.0	124.08	137.71	0.20	27.54	151.62
	MEFL	0.20	587.50	155.10	0.0	31.02	34.43	0.20	6.89	37.91
	TOFR	0.20	293.75	77.55	0.0	15.51	17.21	0.20	3.44	18.95
	TOPI	0.20	2350.00	620.40	0.0	124.08	137.71	0.20	27.54	151.62
	SUBTOTAL					294.69			666.61	961.30
PEANS (DRY EDIBLE)		ACRES	CMT							
NORTH DAKOTA	CUTS	139.00	0.00	0.02	1.00	0.02	0.04	0.0	0.0	0.02
	GRAS	139.00	0.15	1.53	1.00	1.53	3.67	0.0	0.0	1.53
	GPCL	139.00	0.00	0.02	1.00	0.02	0.04	0.0	0.0	0.02
	SUBTOTAL					1.56			0.0	1.56

INSECTS AFFECTING		YIELD LOSS		CONTROL COST		TOTAL LOSS (\$1000)
STATE	PEST	TOTAL UNITS PRODUCED (1000)	LOSS PER UNIT (DOLLARS)	NON- TREATED UNITS (1000)	SUB- TOTAL LOSS (\$1000)	
PEAS		ACRES	TONS			
MINNESOTA	LOOS	72.30	0.0	0.0	0.0	75.92
	PEAP	72.30	0.0	0.0	0.0	60.73
WISCONSIN	PEAP	117.20	0.0	0.0	0.0	65.70
	SUBTOTAL				0.0	202.35
SNAP BEANS		ACRES	CWT			
ALABAMA	HELH	1.40	0.0	0.0	0.0	5.60
	COEA	1.40	0.0	0.0	0.0	5.60
	LECB	1.40	0.0	0.0	0.0	2.80
	MEBB	1.40	0.0	0.0	0.0	11.20
	SPMI	1.40	0.0	0.0	0.0	2.80
HAWAII <sup>1/</sup>	CASM	0.13	1402.50	638.14	82.96	108.97
	LEFL	0.13	1262.25	574.32	74.66	98.07
WISCONSIN	EUCH	69.50	0.0	0.0	0.0	260.62
	PLHU	69.50	0.0	0.0	0.0	390.94
	POLE	69.50	0.0	0.0	0.0	390.94
	SUBTOTAL				157.62	1277.54
CABBAGE		ACRES	CWT			
WISCONSIN <sup>1/</sup>	CAAP	5.30	0.77	1.63	8.65	29.43
	CALO	5.30	2.31	4.90	25.96	88.28
	DIMO	5.30	2.31	4.90	25.96	88.28
	IMCA	5.30	2.31	4.90	25.96	88.28
	SUBTOTAL				86.52	294.28
CABBAGE (CHINESE)		ACRES	POUNDS			
HAWAII <sup>1/</sup>	HLCU	0.26	796.80	86.05	22.37	31.69

INSECTS AFFECTING			YIELD LOSS			CONTROL COST			TOTAL LOSS (\$1000)	
STATE	PEST	TOTAL UNITS PRODUCED (1000) ACRES	LOSS PER UNIT (DOLLARS)	NON- TREATED UNITS (1000)	SUB- TOTAL (\$1000)	COST PER UNIT (DOLLARS)	TREATED UNITS (1000)	SUB- TOTAL (\$1000)		
CARBAGE (CHINESE) (CONT'D)										
HAWAII 1/	CALO	0.26	396.40	43.03	0.0	11.19	17.91	0.26	4.66	15.84
	DIMO	0.26	2390.40	258.16	0.0	67.12	107.48	0.26	27.94	95.07
	SUBTOTAL					100.68			41.92	142.60
CARBAGE (HEAD)										
HAWAII 1/	DIMO	0.41	2100.00	207.90	0.0	85.24	110.69	0.41	45.38	130.62
	LOOS	0.41	600.00	59.40	0.0	24.35	31.63	0.41	12.97	37.32
	VACU	0.41	150.00	14.85	0.0	6.09	7.91	0.41	3.24	9.33
	SUBTOTAL					115.68			61.59	177.27
CUCUMBER										
HAWAII 1/	GRWH	0.26	222.00	39.52	0.0	10.27	19.41	0.26	5.05	15.32
	LEFL	0.26	888.00	158.06	0.0	41.10	77.65	0.26	20.19	61.29
	MEFL	0.26	1110.00	197.58	0.0	51.37	97.06	0.26	25.24	76.61
	SUBTOTAL					102.74			50.47	153.22
GREEN ONIONS										
HAWAII 1/	BEAH	0.09	806.00	403.81	0.0	36.34	61.32	0.09	5.52	41.86
	LEFL	0.09	2095.60	1049.90	0.0	94.49	159.44	0.09	14.35	108.84
	ONTH	0.09	322.40	161.52	0.0	14.54	24.53	0.09	2.21	16.74
	SUBTOTAL					145.37			22.08	167.45
LETTUCE										
HAWAII 1/	HLCU	0.52	82.50	15.76	0.0	8.19	8.85	0.52	4.60	12.80
	LOOS	0.52	165.00	31.52	0.0	16.39	17.70	0.52	9.21	25.59
	WEFT	0.52	1320.00	252.12	0.0	131.10	141.62	0.52	73.64	204.74



INSECTS AFFECTING		TOTAL UNITS PRODUCED (1000) ACRES	LOSS PER UNIT (DOLLARS)	YIELD LOSS		SUB- TOTAL (\$1000)	CONTROL COST		TOTAL LOSS (\$1000)
STATE	PEST			LOSS UNIT (DOLLARS)	NON- TREATED UNITS (1000)		COST UNIT (DOLLARS)	TREATED UNITS (1000)	
LETTUCE (CONT'D)			CWT						
WISCONSIN <sup>1/</sup>	ASLE	1.40	34.50	427.80	0.0	598.92	42.00	1.40	657.72
	SUBTOTAL					754.60			900.85
ONIONS		ACRES	CWT						
WISCONSIN <sup>1/</sup>	ASLE	1.40	5.84	33.29	0.0	46.61	6.16	1.40	55.24
	ONMA	1.40	14.87	84.75	0.0	118.65	15.68	1.40	140.60
	ONTH	1.40	5.84	33.29	0.0	46.61	6.16	1.40	55.24
	SUBTOTAL					211.87		39.20	251.07
SWEETPOTATOES		ACRES	CWT						
ALABAMA	FLBE	5.50	0.0	0.0	0.0	0.0	3.85	5.50	21.17
	GRCU	5.50	0.0	0.0	0.0	0.0	0.55	5.50	3.02
	WIRM	5.50	0.0	0.0	0.0	0.0	6.60	5.50	36.30
	SUBTOTAL					0.0		60.50	60.50
APPLES		ACRES	POUNDS						
ARKANSAS	COMO	2.14	0.0	0.0	0.0	0.0	29.70	2.14	63.56
	LEPS	2.14	0.0	0.0	0.0	0.0	2.47	2.14	5.30
	MITG	2.14	0.0	0.0	0.0	0.0	34.65	2.14	74.15
	PLCU	2.14	0.0	0.0	0.0	0.0	29.70	2.14	63.56
	ROAA	2.14	0.0	0.0	0.0	0.0	2.47	2.14	5.30
MINNESOTA	APCU	3.24	54.40	6.69	0.24	1.61	0.60	3.00	3.41
	APMA	3.24	18.13	2.23	0.24	0.54	0.20	3.00	1.14
	COMO	3.24	44.97	5.53	0.24	1.33	0.50	3.00	2.83
	LEPS	3.24	44.97	5.53	0.24	1.33	0.50	3.00	2.83
	MITG	3.24	18.13	2.23	0.24	0.54	0.20	3.00	1.14
WISCONSIN	APMA	7.00	0.0	0.0	0.0	0.0	125.00	7.00	875.00
	SUBTOTAL					5.33		1092.86	1098.19

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INSECTS AFFECTING		YIELD LOSS		CONTROL COST		TOTAL LOSS (\$1000)	
STATE	PEST	TOTAL UNITS PRODUCED (1000)	LOSS PER UNIT (DOLLARS)	NON-TREATED UNITS (1000)	SUB-TOTAL (\$1000)		
CHERRIES							
ACRES							
WISCONSIN							
	CHFF	3.40	0.0	0.0	0.0	306.00	
	SUBTOTAL				0.0	306.00	
PEACHES							
POUNDS							
ALABAMA							
	LFPB	14000.00	0.0	0.0	0.0	78.00	
	PERO	14000.00	0.0	0.0	0.0	78.00	
	PLCU	14000.00	0.0	0.0	0.0	39.00	
	SAJS	14000.00	0.0	0.0	0.0	39.00	
	WHPS	14000.00	0.0	0.0	0.0	39.00	
ARKANSAS							
	GRFM	4.35	0.0	0.0	0.0	163.09	
	PEBO	4.35	0.0	0.0	0.0	69.90	
	PLCU	4.35	0.0	0.0	0.0	46.60	
	SCAS	4.35	0.0	0.0	0.0	23.30	
	STBU	4.35	0.0	0.0	0.0	55.92	
	TAPB	4.35	0.0	0.0	0.0	107.18	
	SUBTOTAL				0.0	738.98	
PECANS							
TREES							
ALABAMA							
	HLPB	4000.00	0.32	0.27	208.70	433.70	
	HISH	4000.00	0.0	0.0	0.0	600.00	
	PEWE	4000.00	0.22	0.18	139.13	289.13	
	SPMI	4000.00	0.22	0.18	139.13	289.13	
	YEAP	4000.00	0.54	0.45	347.83	722.83	
OKLAHOMA 8/							
	APHB	1000.00	0.47	0.33	9.38	14.15	
	HISH	1000.00	1.25	0.88	25.06	37.77	
	PENC	1000.00	6.55	4.64	131.58	198.29	
	PEWE	1000.00	7.02	4.97	140.96	212.44	
	PHYS	1000.00	0.31	0.22	6.27	9.44	
TEXAS 7/							
	HLPB	800.00	0.0	0.0	0.0	185.93	
	FAWE	800.00	0.0	0.0	0.0	740.41	
	HISH	800.00	0.0	0.0	0.0	617.56	

INSECTS AFFECTING STATE	PEST	TOTAL UNITS PRODUCED (1000) POUNDS	LOSS PER UNIT (DOLLARS)	YIELD LOSS		SUB- TOTAL (\$1000)	COST PER UNIT (DOLLARS)	CONTROL COST		TOTAL LOSS (\$1000)
				LOSS PER UNIT (DOLLARS)	NON- TREATED UNITS (1000)			TREATED UNITS (1000)	SUB- TOTAL (\$1000)	
PECANS (CONT'D)										
TEXAS <sup>1/</sup>	PENC	800.00	0.0	0.0	633.99	0.0	9.30	166.01	1543.91	1543.91
	PEWE	800.00	0.0	0.0	633.99	0.0	9.30	166.01	1543.91	1543.91
	STBU	800.00	0.0	0.0	633.99	0.0	0.37	166.01	61.42	61.42
	WACA	800.00	0.0	0.0	633.99	0.0	6.32	166.01	1049.20	1049.20
	YEAP	800.00	0.0	0.0	633.99	0.0	2.60	166.01	431.63	431.63
	SUBTOTAL					1148.03		7832.82		8980.85
CITHUS		ACRES	BOXES							
TEXAS	CHSC	74.20	0.0	0.0	0.0	0.0	3.06	74.20	227.05	227.05
	CIMM	74.20	0.0	0.0	0.0	0.0	6.12	74.20	454.10	454.10
	FLRS	74.20	0.0	0.0	0.0	0.0	51.98	74.20	3856.92	3856.92
	SUBTOTAL					0.0		4538.07		4538.07
PAPAYA		ACRES	POUNDS							
HAWAII <sup>1/</sup>	CASM	1.93	233.10	31.47	0.0	60.73	89.18	1.93	172.12	232.85
	SUBTOTAL					60.73			172.12	232.85
GRAPES		ACRES	TONS							
ARKANSAS	GRRM	2.76	0.0	0.0	0.0	0.0	4.60	2.76	12.70	12.70
	GRRB	2.76	0.0	0.0	0.0	0.0	23.00	2.76	63.48	63.48
	GRSC	2.76	0.0	0.0	0.0	0.0	18.40	2.76	50.78	50.78
	SUBTOTAL					0.0		126.96		126.96
BROILERS		BIROS	POUNDS							
ALABAMA	DABE	430224.61	0.0	0.0	0.0	0.0	0.00	430224.61	1290.67	1290.67
	MOFY	430224.61	0.0	0.0	0.0	0.0	0.03	430224.61	11616.06	11616.06
	SUBTOTAL					0.0			12906.73	12906.73

INSECTS AFFECTING		YIELD LOSS			CONTROL COST				
STATE	PEST	TOTAL UNITS PRODUCED (1000)	LOSS PER UNIT (\$1000)	NON- TREATED UNITS (1000)	SUB- TOTAL (\$1000)	COST PER UNIT (\$1000)	TREATED UNITS (1000)	SUB- TOTAL (\$1000)	TOTAL LOSS (\$1000)
CATTLE									
HEAD									
MISSISSIPPI	CALI	2723.00	0.0	898.59	0.0	0.15	1824.41	273.66	273.66
	COCG	2723.00	0.0	898.59	0.0	0.15	1824.41	273.66	273.66
	FAFL	2723.00	0.0	898.59	0.0	0.60	1824.41	1094.65	1094.65
	HEFY	2723.00	0.0	898.59	0.0	0.15	1824.41	273.66	273.66
	HOFL	2723.00	0.0	898.59	0.0	1.80	1824.41	3283.94	3283.94
HEAD									
NORTH DAKOTA	TICS	2723.00	0.0	898.59	0.0	0.15	1824.41	273.66	273.66
	HLFL	2235.00	0.00	503.57	42.80	0.00	1172.67	5.86	48.67
	CAGR	2235.00	0.02	503.57	428.04	0.05	1172.67	58.63	486.67
	CALI	2235.00	0.85	503.57	428.04	0.05	1172.67	58.63	486.67
	FAFL	2235.00	0.00	503.57	42.80	0.00	1172.67	5.86	48.67
	HOFL	2235.00	0.19	503.57	3210.29	0.38	1172.67	439.75	3650.04
	MOSS	2235.00	0.00	503.57	42.80	0.00	1172.67	5.86	48.67
	STFL	2235.00	0.01	503.57	85.61	0.01	1172.67	11.73	97.33
	TAFL	4275.00	0.0	0.0	0.0	1.00	4275.00	4275.00	4275.00
	SUBTOTAL				4280.38			10334.56	14614.94
CATTLE (BEEF)									
HEAD									
ALABAMA	COCG	1430.00	0.13	500.00	1820.70	0.49	930.00	455.70	2276.40
	FAFL	1430.00	0.22	500.00	3121.20	0.84	930.00	781.20	3902.40
	HOFL	1430.00	0.31	500.00	4421.70	1.19	930.00	1106.70	5528.40
	HOFY	1430.00	0.05	500.00	650.25	0.17	930.00	162.75	813.00
	LICE	1430.00	0.16	500.00	2340.90	0.63	930.00	585.90	2926.80
OKLAHOMA	TAFL	1430.00	0.05	500.00	650.25	0.17	930.00	162.75	813.00
	CALI	7800.00	0.03	2320.50	2239.86	0.16	4309.50	702.45	2942.31
	COCG	7800.00	0.07	2320.50	5620.02	0.41	4309.50	1756.12	7376.14
	FAFL	7800.00	0.01	2320.50	1099.57	0.08	4309.50	351.22	1450.79
	HEFY	7800.00	0.03	2320.50	2239.86	0.16	4309.50	702.45	2942.31
TEXAS <sup>2/</sup>	HOFL	7800.00	0.08	2320.50	6719.59	0.49	4309.50	2107.35	8826.93
	TICS	7800.00	0.06	2320.50	4479.72	0.33	4309.50	1404.90	5884.62
	COCG	15600.00	1349.97	5672.31	2680108.00	0.22	9327.69	2098.73	2682206.73
	HOFL	15600.00	3149.93	5672.31	6253585.33	0.52	9327.69	4897.04	6258482.36
	LICE	15600.00	899.98	5672.31	1786738.66	0.15	9327.69	1399.15	1788137.82
SCRM	MOSS	15600.00	37.51	5672.31	74469.42	0.01	9327.69	58.76	74528.18
	SCRM	15600.00	37.51	5672.31	74469.42	0.01	9327.69	58.76	74528.18

INSECTS AFFECTING STATE	PEST	TOTAL UNITS PRODUCED (1000) HEAD	LOSS PER UNIT (DOLLARS)	YIELD LOSS		SUB- TOTAL (\$1000)	CONTROL COST		TOTAL LOSS (\$1000)
				LOSS PER UNIT (DOLLARS)	NON- TREATED UNITS (1000)		COST PER UNIT (DOLLARS)	TREATED UNITS (1000)	
CATTLE (BEEF) (CONT'D)			POUNDS						
TEXAS <sup>2/</sup>	STFL	15600.00	675.01	236.25	5672.31	1340097.60	0.11	9327.69	1049.36
	TICS	15600.00	1349.97	472.49	5672.31	2680108.00	0.22	9327.69	2098.73
	SUBTOTAL					14924976.0		21940.00	14946916.0
CATTLE AND CALVES	HEAD	HEAD	HEAD						
ARKANSAS	HOFL	2385.00	0.0	0.0	1185.00	0.0	0.88	1200.00	1050.00
	LICE	2385.00	0.0	0.0	0.0	0.0	0.15	1300.00	195.00
	LOST	2385.00	0.0	0.0	1185.00	0.0	0.38	1200.00	450.00
	MOSS	2385.00	0.0	0.0	400.00	0.0	0.0	0.0	0.0
	SUBTOTAL					0.0		1695.00	1695.00
CATTLE (DAIRY)	HEAD	HEAD	CWT						
ALABAMA	BLFL	88.00	0.0	0.0	0.0	0.0	0.15	88.00	13.20
	COCG	88.00	0.0	0.0	0.0	0.0	0.45	88.00	39.60
	FAFL	88.00	0.0	0.0	0.0	0.0	0.45	88.00	39.60
	HOFL	88.00	0.0	0.0	0.0	0.0	1.35	88.00	118.80
	LICE	88.00	0.0	0.0	0.0	0.0	0.15	88.00	13.20
	MOSS	88.00	0.0	0.0	0.0	0.0	0.15	88.00	13.20
	STFL	88.00	0.0	0.0	0.0	0.0	0.15	88.00	13.20
	TAFL	88.00	0.0	0.0	0.0	0.0	0.06	88.00	5.28
	TICS	88.00	0.0	0.0	0.0	0.0	0.09	88.00	7.92
ARKANSAS	HOFL	89.00	5.31	56.36	30.00	1690.81	4.80	59.00	283.20
	HOFL	89.00	1.33	14.09	30.00	422.70	1.20	59.00	70.80
OKLAHOMA	CALI	1101999.76	4.01	39.72	5.79	230.04	0.90	110.04	99.04
	COCG	1101999.76	4.01	39.72	5.79	230.04	0.90	110.04	99.04
	FAFL	1101999.76	1.60	15.85	5.79	91.80	0.36	110.04	39.61
	HOFL	1101999.76	6.02	59.59	5.79	345.06	1.35	110.04	148.55
	STFL	1101999.76	2.40	23.78	5.79	137.70	0.54	110.04	59.42
	TICS	1101999.76	2.01	19.86	5.79	115.02	0.45	110.04	49.52
TEXAS	COCG	3309119.63	53.98	572.19	0.0	0.0	0.34	320.00	107.71
	HOFL	3309119.63	125.95	1335.11	0.0	0.0	0.79	320.00	251.33

INSECTS AFFECTING		TOTAL UNITS PRODUCED (1000)	LOSS PER UNIT	YIELD LOSS		SUB- TOTAL (\$1000)	CONTROL COST		TOTAL LOSS (\$1000)
STATE	PEST	# MILK	CWT MILK	LOSS PER UNIT (DOLLARS)	NON- TREATED UNITS (1000)		COST PER UNIT (DOLLARS)	TREATED UNITS (1000)	
CATTLE (DAIRY)									
(CONT'D)									
TEXAS	LICE	3309119.63	35.99	381.46	0.0	0.0	0.22	320.00	71.81
	MOSS	3309119.63	1.50	15.89	0.0	0.0	0.01	320.00	3.01
	SCRM	3309119.63	149.94	1589.41	0.0	0.0	0.01	320.00	3.01
	STFL	3309119.63	26.99	286.09	0.0	0.0	0.17	320.00	53.86
	TICS	3309119.63	53.98	572.19	0.0	0.0	0.34	320.00	107.71
SUBTOTAL						3263.17		1711.61	4974.76
HENS AND PULLETS									
		HEAD							
ARKANSAS	NOFM	15600.00	0.0	0.0	0.0	0.0	0.02	5600.00	112.00
SUBTOTAL						0.0		112.00	112.00
HOGS									
		HEAD	CWT						
ALABAMA	HOFY	232056.00	0.16	7.00	400.00	2801.18	1.70	1460.00	2482.00
	HOL	232056.00	0.02	0.82	400.00	329.55	0.20	1460.00	292.00
	MAMI	232056.00	0.01	0.41	400.00	164.78	0.10	1460.00	146.00
SUBTOTAL						3295.51		2920.00	6215.51
HORSES									
		HEAD	HEAD						
TEXAS	HOFL	700.00	0.0	0.0	240.78	0.0	0.03	284.22	8.36
	HEFY	700.00	0.0	0.0	240.78	0.0	0.09	284.22	25.15
	HOFY	700.00	0.0	0.0	240.78	0.0	0.03	284.22	8.36
	LICE	700.00	0.0	0.0	240.78	0.0	0.01	284.22	3.33
	MOSS	700.00	0.0	0.0	240.78	0.0	0.06	284.22	16.71
	STFL	700.00	0.0	0.0	240.78	0.0	0.07	284.22	20.04
	TICS	700.00	0.0	0.0	240.78	0.0	0.01	284.22	3.33
SUBTOTAL						0.0		85.27	85.27

INSECTS AFFECTING STATE		TOTAL UNITS PRODUCED (1000)	LOSS PER UNIT	YIELD LOSS		SUB-TOTAL (\$1000)	CONTROL COST			TOTAL LOSS (\$1000)
	PEST		LOSS PER UNIT (DOLLARS)	NON-TREATED UNITS (1000)			COST PER UNIT (DOLLARS)	TREATED UNITS (1000)	SUB-TOTAL (\$1000)	
HUMANS										
WISCONSIN	MOSS	4420.00	0.0	0.0	0.0	0.0	1.00	4420.00	4420.00	4420.00
	SUBTOTAL					0.0			4420.00	4420.00
LAYING HENS										
		BIRDS	BIRDS							
ALABAMA	HOFY	12300.00	0.0	0.0	0.0	0.0	0.10	12300.00	1180.80	1180.80
	LICE	12300.00	0.0	0.0	0.0	0.0	0.01	12300.00	73.80	73.80
	WITS	12300.00	0.0	0.0	0.0	0.0	0.02	12300.00	221.40	221.40
	SUBTOTAL					0.0			1476.00	1476.00
POULTRY										
		BIPDS	BIPDS							
TEXAS	CHIS	50147.73	0.0	0.0	0.0	0.0	0.01	50147.73	451.33	451.33
	LICE	50147.73	0.0	0.0	0.0	0.0	0.01	50147.73	752.22	752.22
	TICS	50147.73	0.0	0.0	0.0	0.0	0.00	50147.73	250.74	250.74
	SUBTOTAL					0.0			1454.28	1454.28
SHEEP AND GOATS										
		HEAD	HEAD							
TEXAS 6/	LICE	3720.00	0.0	0.0	0.0	0.0	0.14	2232.00	321.41	321.41
	NORF	3720.00	0.0	0.0	0.0	0.0	0.01	2232.00	11.38	11.38
	SCRM	3720.00	0.0	0.0	0.0	0.0	0.00	2232.00	0.22	0.22
	SHKE	3720.00	0.0	0.0	0.0	0.0	0.01	2232.00	11.38	11.38
	TICS	3720.00	0.0	0.0	0.0	0.0	0.01	2232.00	15.18	15.18
	SUBTOTAL					0.0			359.57	359.57
STRUCTURES										
		HOMES								
ALABAMA	CIRE	1160.00	0.0	0.0	0.0	0.0	0.21	1160.00	243.60	243.60
	CLMO	1160.00	0.0	0.0	0.0	0.0	0.28	1160.00	324.80	324.80



INSECTS AFFECTING STATE	PEST	TOTAL UNITS PRODUCED (1000) HOMES	YIELD LOSS		SUB- TOTAL (\$1000)	CONTROL COST		TOTAL LOSS (\$1000)
			LOSS PER UNIT (DOLLARS)	NON- TREATED UNITS (1000)		COST PER UNIT (DOLLARS)	TREATED UNITS (1000)	
STRUCTURES (CONT'D)								
ALABAMA	COCs	1160.00	0.0	0.0	0.0	0.70	1160.00	812.00
	HOFY	1160.00	0.0	0.0	0.0	0.70	1160.00	812.00
	MOSS	1160.00	0.0	0.0	0.0	0.70	1160.00	812.00
	SUTE	1160.00	0.0	0.0	0.0	4.20	1160.00	4872.00
SUBTOTAL					0.0		7876.40	7876.40

BEEF BREEDING STOCK							
			HEAD		POUNDS		
ALABAMA	COCG	2360.00	18.24	521.66	0.76	2000.00	1520.00
	FAFL	2360.00	27.84	796.22	1.16	2000.00	2320.00
	HOFL	2360.00	23.04	658.94	0.96	2000.00	1920.00
	HOFL	2360.00	4.80	137.28	0.20	2000.00	400.00
	LICE	2360.00	17.28	494.21	0.72	2000.00	1440.00
	TAFL	2360.00	4.80	137.28	0.20	2000.00	400.00
NORTH DAKOTA	ALWE	1620.00	0.01	0.23	0.20	60.75	12.15
	APHS	1620.00	0.02	0.70	0.60	60.75	36.45
	GRAS	1620.00	0.08	3.51	3.00	60.75	18.25
	PLBU	1620.00	0.01	0.23	0.20	60.75	12.15
	SUBTOTAL						8242.98
SUBTOTAL				988889.31			997132.25

CARROTS							
			ACRES		TONS		
WISCONSIN <sup>1/</sup>	APHS	3.30	0.10	4.20	4.20	3.30	13.86
	ASLE	3.30	0.86	37.82	37.80	3.30	124.74
	SUBTOTAL						138.60
SUBTOTAL							277.27

# LEGEND

ALCA	ALFALFA CATERPILLAR	CHIS	CHIGGERS	HOFY	HOUSE FLY
ALWE	ALFALFA WEEVIL	CIBE	CIGARETTE BEETLE	IMCA	IMPORTED CABRAGEWORM
ALWO	ALMOND MOTH	CIRM	CITRUS RUST MITE	INMM	INDIAN MEAL MOTH
AMRE	AMBROSIA BEETLE	CLMO	CLOTHES MOTH	IPEB	IPS ENGRAVER BEETLES
ANGM	ANGOUNOIS GRAIN MOTH	COCs	COCKROACHES	LEAS	LEAFHOPPERS
ANTS	ANTS	COMO	COLLING MOTH	LEFL	LEAFMINER FLIES
APHS	APHIDS	COPB	COLORADO POTATO BEETLE	LEMO	LEEK MOTH
APCU	APPLE CURCULIO	COCG	COMMON CATTLE GRUB	LECB	LESSER CORNSTALK BORER
APNA	APPLE MAGGOT	COEA	CORN EARWORM	LEPB	LESSER PEACHTREE BORE
ARCU	ARMY CUTWORM	COFB	CORN FLEA BEETLE	LICE	LICE
ARMM	ARMYWORM	COLA	CORN LEAF APHID	LOST	LOST
ASLE	ASTER LEAFHOPPER	CORL	CORN ROOTWORM LARVAE	LOOS	LOOPER
A7BS	AZALEA BARK SCALE	CORO	CORN ROOTWORMS	MAGS	MAGGOTS
A7L9	AZALEA LACE BUG	COAP	COTTON APHID	MABI	MAIZE BILLBUG
BAGM	BAGWORM	COFL	COTTON FLEAHOPPER	MAMI	MANGE MITES
BAWH	BANDEDWING WHITEFLY	CRIS	CRICKETS	MEMO	MEAL MOTH
RGMR	BANKS GRASS MITE	CUTS	CUTWORMS	MEFM	MEDITERRANEAN FLOUR MOTH
BATH	BARLEY THRIPS	DABE	DARKLING BEETLES	MEFL	MELON FLY
RFEL	BEAN FLY	DEFL	DEER FLIES	MEBB	MEXICAN BEAN BEETLE
RELB	BEAN LEAF BEETLE	DIMO	DIAMONDBACK MOTH	MIDS	MIDGES
REAR	BEEET ARMYWORM	DOFL	DUG FLEA	MILS	MILLIPEDES
BFES	BEETLES	FATC	EASTERN TENT CATERPILLAR	MIE	MIMOSA WEBWORM
ALCU	BLACK CUTWORM	ELLB	ELM LEAF BEETLE	MITS	MITES
ALFL	BLACK FLIES	EUCB	EUROPEAN CORN BORER	MOSS	MOSQUITOES
ALPA	BLACK PECAN APHID	FAFL	FACE FLY	NPTM	NANTUCKET PINE TIP MOTH
RLTB	BLACK TURPENTINE BEETLE	FAAR	FALL ARMYWORM	NOFM	NORTHERN FOWL MITE
HOWE	BOLL WEEVIL	FAWE	FALL WERWORM	NOHF	NOSE BOT FLY
ROLM	BOLLWORM	FACH	FALSE CHINCH BUG	ONMA	ONION MAGGOT
ROFL	BOT FLIES	FLBE	FLEA BEETLES	ONTH	ONION THRIPS
HRMI	BROAD MITE	FLKS	FLORIDA RED SCALE	ORFM	ORIENTAL FRUIT MOTH
BRSB	BROWN STINK RUG	FOTC	FOREST TENT CATERPILLAR	PEAP	PEA APHID
BRWM	BROWN WHEAT MITE	GAME	GARDEN WEBWORM	PEBO	PEACHTREE BORER
RUDM	BUDWORM	GRCU	GHANULATE CUTWORM	PFLP	PECAN LEAF PHYLLOXERA
BURU	BURROWING BUGS	GRHM	GRAPE BERRY MOTH	PENC	PECAN NUT CASEBEAKER
CAAP	CARRAGE APHID	GRRR	GRAPE KNOT BORER	PEPH	PECAN PHYLLOXERA
CALO	CABBAGE LOO-F	GRSC	GRAPE SCALE	PEWE	PECAN WEEVIL
CASC	CAMELLIA SCALE	GRAS	GRASSHOPPERS	PRWL	PEPPER WEEVIL
CASM	CARMINE SPIDER MITE	GREG	GREENHUG	PHYS	PHYLLOXERAS
CARE	CARPET BEETLE	GRCL	GREEN CLOVERWORM	PIBO	PINK BOLLWORM
CTRE	CARROT BEETLE	GRWH	GREENHOUSE WHITEFLY	PLBU	PLUM BUGS
CAFL	CAT FLEA	GRPA	GREEN PEACH APHID	PLCU	PLUM CURCULIO
CAGH	CATTLE GRUB	GRPE	GROUND PEARL	POATU	POTATO APHID
CALI	CATTLE LICE	HISH	HICKORY SHUCKWORM	POFH	POTATO FLEA BEETLE
CENS	CENTIPEDES	HOLD	HUG LOUSE	POLE	POTATO LEAFHOPPER
CHSC	CHAFF SCALE	HOFI	HORN FLY	REPS	REDHEADED PINE SAWFLY
CHFF	CHERRY FRUIT FLY	HORS	HORNWORMS	REPE	REDNECKED PEANUTWORM
CHBU	CHINCH RUG	HEFY	HORSE FLY		

# LEGEND (CON'T)

RISH	RICE STINK BUG	SOGB	SQUARENECKED GRAIN BEETLE	TOPI	TOMATO PINWORM
RIWW	RICE WATER WEEVIL	STFL	STABLE FLY	TWSP	TWOLINED SPITTLEBUG
ROMA	ROOT MAGGOTS	STBU	STALK BORERS	TWSM	TWOSPOTTED SPIDER MITE
ROAA	ROSY APPLE APHID	SUTE	STINK BUGS	VACU	VARIEGATED CUTWORM
SAJS	SAN JOSE SCALE	SURM	SURTERRANEAN TERMITES	VEVE	VEGETABLE WEEVIL
SAGB	SAWTOOTHED GRAIN BEETLE	SURE	SUGARBEEF ROOT MAGGOT	VECA	VELVETBEAN CATERPILLAR
SCAS	SCALES	SUMO	SUNFLOWER BEETLE	WACA	WALNUT CATERPILLAR
SCRM	SCREENWORM	SUNO	SUNFLOWER MOTH	WEHS	WERWORMS
SHKE	SHEEP KED	SUSM	SUNFLOWER SEED MIDGE	WEES	WEEVILS
SILH	SILVERFISH	SWWE	SWEETPOTATO WEEVIL	WEBC	WESTERN BEAN CUTWORM
SOWE	SOD WEBWORM	TAFL	TARANID FLIES	WEFT	WESTERN FLOWER THRIPS
SOMI	SORGHUM MIDGE	TAPB	TARNISHED PLANT BUG	WHSM	WHEAT STEM MAGGOT
SNWM	SORGHUM WEBWORM	TESC	TEA SCALE	WHSS	WHEAT STEM SAWFLY
SOCB	SOUTHERN CORN ROOTWORM	TECM	TEXAS CITRUS MITE	WHIS	WHITEFLIES
SOCB	SOUTHERN CORNSTALK BORER	THAH	THREECORNECKED ALFALFA HOPPER	WHBE	WHITEFRINGED BEETLES
SOSB	SOUTHERN GREEN STINK BUG	THRH	THREESTRIPE BLISTER BEETLE	WHGR	WHITE GRUBS
SOPB	SOUTHERN PINE BEETLE	THRS	THIRPS	WHPS	WHITE PEACH SCALE
SOPS	SOUTHERN PINE SAWYER	TICS	TICKS	WHPM	WINTER GRAIN MITE
SOB	SOUTHWESTERN CORN BORER	TOBU	TORACCO BUDWORM	WIRM	WIPEWORM
SOLO	SOYBEAN LOOPER	TOFA	TORACCO FLEA BEETLE	YEAP	YELLOW APHIDS
SPMI	SPIDER MITES	TOHO	TORACCO HORNWORM	YEAP	YELLOWSTRIPED ARMYWORM
SPAA	SPOTTED ALFALFA APHID	TOTH	TORACCO THRIPS	YESA	YELLOW SUGARCANE APHID
		TOFR	TOMATO FRUITWORM		

1/ Loss in yield in spite of treatment.

2/ Figures do not include Screwworm Eradication Program costs.

3/ Cost of 1.5 applications.

4/ Quality loss due to reduced protein levels not included.

5/ Cost of 2 applications.

6/ Quality loss on wool and mohair not included.

7/ Total units produced in pounds instead of trees.

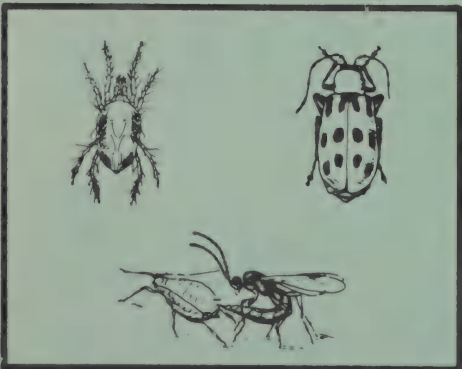
8/ Total units produced in acres instead of trees.

9/ Acreage fed on by one cow and calf per month.



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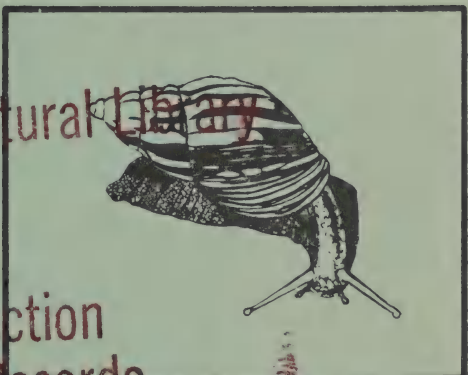
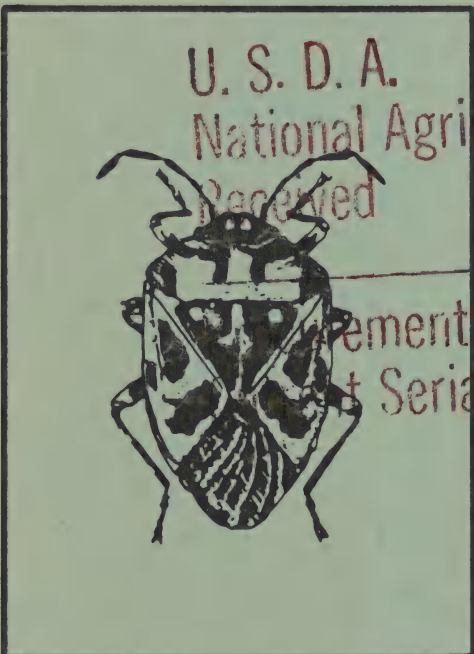
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Vol. 3 No. 12

March 24, 1978

# Cooperative PLANT PEST REPORT

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This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

*Cooperative Plant Pest Report* supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

*Correspondence should be directed to:*

*CPPR*

New Pest Detection and Survey Staff  
Plant Protection and Quarantine Programs  
Animal and Plant Health Inspection Service  
U.S. Department of Agriculture  
Federal Building #1  
Hyattsville, Maryland 20782

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## **COOPERATIVE PLANT PEST REPORT**

### **HIGHLIGHTS**

#### Detection

An ARMORED SCALE is new to Puerto Rico. (p. 122).

New county record on page 123.

Reports in this issue are for the week ending March 17 unless otherwise indicated.



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## SMALL GRAINS

### INSECTS

ARMY CUTWORM (Euxoa auxiliaris) - COLORADO - Northeastern area--some light activity on winter wheat week ending March 14. (Hantsbarger).

ENGLISH GRAIN APHID (Macrosiphum avenae) - NORTH CAROLINA - Wake, Randolph, and Cleveland Counties--averaged 3 per sweep in 5 wheat fields week ending March 10. (Hunt).

CORN LEAF APHID (Rhopalosiphum maidis) - NEVADA - Clark County--averaged 3 per barley stem at Logandale week ending March 10. (Hilbig et al.).

GREENBUG (Schizaphis graminum) - NEW MEXICO - Eddy County--averages per 0.3 row m (row ft) of small grains: 1-3 near Espuela and less than 1 in Artesia area. (Riddle). TEXAS - Counts per 0.3 row m of small grains March 6 by county: Archer, Baylor, Wichita--1-44; Fisher--up to 13; Hardeman--5-106; Foard--up to 163 (185 in few spots). (Boring). OKLAHOMA - Counts per 0.3 row m by county: Noble--ranged 0-4 in 4 wheat fields and Cotton--averaged less than 5 in several fields week ending March 10. (Arnold).

## FORAGE LEGUMES

### INSECTS

ALFALFA WEEVIL (Hypera postica) - FLORIDA - Alachua County--about 520 larvae and 9 adults in 100 sweeps of alfalfa 35 cm (14 inches) tall at Gainesville. (Mead). OKLAHOMA - Average egg count per 0.09 sq m (sq ft) of alfalfa March 3-4 by county: Payne--39, Stephens--77, and Grady--32. (Arnold).

NORTHERN CORN ROOTWORM (Diabrotica undecimpunctata howardi) - FLORIDA - Alachua County--adults 22 in 100 sweeps of alfalfa 35 cm (14 inches) tall at Gainesville. (Mead).

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - NEVADA - Clark County--averaged 85 per sweep of hay alfalfa at Logandale week ending March 10. (Hoff).

PEA APHID (Acyrtosiphon pisum) - FLORIDA - Alachua County--about 6,000 nymphs and adults in 100 sweeps of alfalfa 35 cm (14 inches) tall at Gainesville. (Mead).

SPOTTED ALFALFA APHID (Therioaphis maculata) - FLORIDA - Alachua County--about 100 nymphs and adults in 100 sweeps of alfalfa 35 cm (14 inches) tall at Gainesville. (Mead).

## DECIDUOUS FRUITS AND NUTS

### INSECTS

PEACHTREE BORER (Sanninoidea exitiosa) - NEW MEXICO - Bernalillo County--damage severe on stock in nurseries at Albuquerque. Percent infestation: 95-100% of nectarines, 50% of canned peach trees, and 75+% of Santa Rosa plums; lighter on other fruit and ornamental stone fruit trees. Some trees treated but control unsatisfactory. (Nielsen).

GREEN PEACH APHID (Myzus persicae) - COLORADO - Palisade, Mesa County, and Vineland, Pueblo County--nymphs 2-17 per 100 peach buds, no unhatched eggs week ending March 14. (Merlino).

## ORNAMENTALS

### INSECTS

AN ARMORED SCALE (Lepidosaphes rubrovittatus Cockerell) - New record for PUERTO RICO - Collected from Ficus lyrata leaf at Ceiba by S. Suarez and S. Rodriguez, February 10, 1978. Determined by S. Nakahara. Four quarantine interceptions from Puerto Rico at New York and Miami from guava in 1946, 1947, 1949, and 1953, and reported once in the "List of Intercepted Plant Pests, 1947." Described from Manila, Philippines. Reported in literature from the Philippines on Abelmoschus esculentus (okra), Hibiscus cannabinus (kenaf), H. sabdariffa (roselle), Syzygium spp., and Syzygium malaccense; Guam Island on Cycas; Palau Islands on Syzygium samarangense and Psidium (guava); Sri Lanka on Hevea brasiliensis (rubbertree); and Mariana Islands (Rota). Material in the United States National Museum (USNM) collected from Dominican Republic, Guyana, Nicaragua, Panama, and Venezuela on Persea (avocado) leaf, Cocos nucifera (coconut), Ficus, F. pandurata (fiddleleaf ficus), guava, Pinus, Rosa, S. malaccense, Yucca filamentosa (adamsneedle yucca), and Zamia debilis. Intercepted material in USNM from Admiralty Islands, New Guinea, Indonesia (Java), Antigua, Barbados, Dominican Republic, Ecuador, Honduras, Jamaica, Nicaragua, Panama, Surinam, U.S. Virgin Islands (St. Thomas), and British Virgin Islands (Tortola) on Agave, bay leaves, Ceiba, Cocos nucifera, guava, Hevea, Myristica fragrans (nutmeg), Musa X paradisiaca (banana), orchid, Peperomia, and Punica (pomegranate). Earliest New World record in the USNM is a quarantine interception from Honduras at New Orleans from Ceiba in 1915. Economic importance unknown. (S. Nakahara, C.E. Miller).

## MAN AND ANIMALS

### INSECTS

FACE FLY (Musca autumnalis) - MISSOURI - New county record. Christian County--overwintered adults collected in home at Billings, March 2, 1978, by R.E. Munson. Determined by B. Abraham; confirmed by W.S. Craig. (Munson).

SHEEP KED (Melophagus ovinus) - MISSOURI - Johnson County--heavy on ewes and lambs (3-days-old); total of 28 keds collected from 1 lamb. (Jones).

## BENEFICIAL ORGANISMS & THEIR ENEMIES

### INSECTS

A BRACONID WASP (Apanteles harrisinae) - CALIFORNIA - Siskiyou County--11 adults emerged from 30 pupae of Harrisina brillians (western grapeleaf skeletonizer) collected along Klamath River on October 25, 1977. First confirmed find from releases in 1976 and 1977. (Allen).

A TACHINID FLY (Sturmia harrisinae) - CALIFORNIA - Siskiyou County--2 adults emerged from 27 parasitized pupae of Harrisina brillians (western grapeleaf skeletonizer) collected at Coyote Canyon. First recovery from material released in 1976 and 1977. (Allen).

## FEDERAL AND STATE PROGRAMS

### INSECTS

RANGE CATERPILLAR (Hemileuca oliviae) - NEW MEXICO - Egg masses at 3 locations outside previously known infested area by county: Guadalupe--3 km (2 miles) northeast of Pastura along Interstate Highway 54; 14 km (9 miles) north of Vaughn; and De Baca--11 km (7 miles) west of Yeso along Interstate Highway 60. Infested area increased by about 200,000 ha (400,000 acres). (Banfill).

SCREWORM (Cochliomyia hominivorax) - No cases reported from continental United States February 26 to March 4. (Meadows). Total of 73 cases confirmed in portion of Barrier Zone in Republic of Mexico. Total of 474 cases reported in Mexico south of Barrier Zone. (Williams, Smith). Number of sterile flies released this period totaled 44,714,000 as follows: Texas 28,140,000, Arizona 14,672,000, California 1,902,000. (Meadows). Total of 167,066,400 sterile flies released within Barrier of Mexico. (Williams, Smith).

## HAWAII PEST REPORT

General Vegetables - GREENHOUSE WHITEFLY (Trialeurodes vaporariorum) moderate to heavy on 0.2 ha (0.5 acre) of pole beans in Waianae Valley, on 185.8 sq m (2,000 sq ft) of tomatoes, on 464.5 sq m (5,000 sq ft) of bush beans at Pearl City, Oahu. BROAD MITE (Polyphagotarsonemus latus) light to heavy in community garden plantings of eggplant and chili pepper at Pearl City. IMPORTED CABBAGEWORM (Pieris rapae) moderate to heavy on broccoli (community garden) at Pearl City. SWEET-POTATO VINE BORER (Omphisa anastomosalis) and WEST INDIAN SWEETPOTATO WEEVIL (Euscepes postfasciatus) heavy on sweetpotato (community garden) at Pearl City. (L. Nakahara).

Fruits and Nuts - CITRUS SWALLOWTAIL (Papilio xuthus) infestation noticeable on grapefruit and lime saplings at Hilo, Hawaii Island. (Yoshioka).

Ornamentals - OLEANDER HAWK MOTH (Deilephila nerii) infestations light to moderate on young gardenia and oleander plants at Hilo and Kona, Hawaii Island. (Yoshioka).

Man and Animals - LONGLEGGED ANT (Anoplolepis longipes) heavy at Waipunaiei, Hawaii Island; large numbers of dead ants at treated residence. (Yoshioka).

## LIGHT TRAP COLLECTIONS

CALIFORNIA - Bellota, 3/7, 11-20°C (52-68°F), BL - ARMYWORM (Pseudaletia unipuncta) 1, VARIEGATED CUTWORM (Peridroma saucia) 1; Stockton, 3/6, 8.3-18°C (47-64°F), BL - Armyworm 1, BLACK CUTWORM (Agrotis ipsilon) 1. FLORIDA - Gainesville, 3/9-15, BL - Armyworm 2, black cutworm 1, GRANULATE CUTWORM (Feltia subterranea) 26, SALTMARSH CATERPILLAR (Estigmene acrea) 7. TEXAS - College Station, 2/28-3/14, BL - Armyworm 4.

## DETECTION

NEW PUERTO RICAN RECORD

### INSECTS

AN ARMORED SCALE (Lepidosaphes rubrovittatus) - PUERTO RICO. (p. 120).

NEW COUNTY RECORD

### INSECTS

FACE FLY (Musca autumnalis) - MISSOURI - Christian. (p. 122).

## CORRECTIONS

CPPR 3(10):73, 76, 77 - KLAMATHWEED BEETLE (Chrysolina quadrigemina) - CALIFORNIA - San Diego County--Add New County record. (Hasbrouck).

# Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff  
Plant Protection and Quarantine Programs, USDA

	<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Destination</u>
<u>Cryptophlebia leucotreta</u> (Meyrick) false codling moth Det. D. Walters	larval	in peppers from baggage	Liberia	Kennedy Airport	USA
<u>Ips acuminatus</u> (Gyllenhal) a scolytid beetle Det. D.M. Anderson	adult	in wood crates with machinery	Spain	Greenville	SC
<u>Ischnodemus pusillus</u> (Dallas) a lygaeid bug Det. J.L. Herring	adult	with dried flowers from cargo	South Africa	Houston	USA
<u>Leucoptera scitella</u> (Zeller) a Lyonetiid moth Det. V.L. Blackburn	pupal	on pears from ship's stores	France	Boston	---
<u>Paralecanium</u> sp. a soft scale Det. S. Nakahara	adult nymph	on orchid leaves from cargo	New Guinea	Los Angeles	CA
<u>Veronicella occidentalis</u> (Guilting) a veronicellid slug Det. R. Munkittrick	adult	on Iiilandisia plants from cargo	Guatemala	Los Angeles	CA
<u>Globodera rostochiensis</u> (Woll.) golden nematode Det. W. Friedman	cyst	with soil on cabbage plants from baggage	Ireland	Kennedy Airport	USA
<u>Heterodera avenae</u> Wollenweber oat cyst nematode Det. W. Friedman	cyst	with soil containing military vehicles	Germany	New York	USA









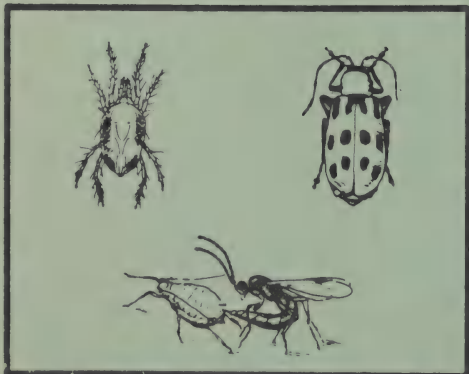


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Vol. 3 No. 13

March 31, 1978

# Cooperative PLANT PEST REPORT

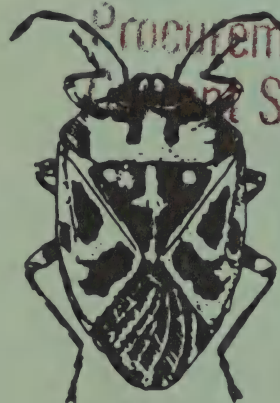
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## COOPERATIVE PLANT PEST REPORT

### HIGHLIGHTS

#### Current Conditions

GREENBUG 100 or more per 0.3 row m (row ft) of small grains in several north-western parts of Texas. (p. 127).

Some 30% tip damage by ALFALFA WEEVIL to alfalfa in North Carolina. (p. 127-128).

#### Detection

- A COMPOSITE in Hawaii is new to the United States. (p. 130).

New county and island records on page 130.

New host of COCONUT SCALE for Hawaii. (p. 130).

#### Some First Occurrences of the Season

ALFALFA CATERPILLAR in Oklahoma. SPRING CANKERWORM females in Minnesota.  
FACE FLY in Oklahoma. EASTERN SUBTERRANEAN TERMITE in Missouri.

Reports in this issue are for the week ending March 24 unless otherwise indicated.

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## CORN, SORGHUM, SUGARCANE

### INSECTS

EUROPEAN CORN BORER (Ostrinia nubilalis) - ILLINOIS - Whiteside County--overwintered survival about 75%. (Black).

## SMALL GRAINS

### INSECTS

ARMY CUTWORM (Euxoa auxiliaris) - OKLAHOMA - Washita County--generally light but ranged 2-4 per 0.3 row m (row ft) in spots in 1 wheat field. (Arnold).

ARMYWORM (Pseudaletia unipuncta) - CALIFORNIA - Stanislaus County--larvae feeding along edge of field of 46-cm (18-inch) barley at Turlock. (Bingham et al.).

GREENBUG (Schizaphis graminum) - TEXAS - Counts per 0.3 row m (row ft) March 2-15 by county: Falls--40-60, Bell--10-80 (with 3-5% parasitism) on wheat; Archer, Baylor, and Hardeman--1-100, Wichita--1-60, Foard and Wilbarger--mean of 200 in most fields, up to 240 in spots; maximum counts on wheat in spots: Oldham--5, Deaf Smith--200, Castro--150, Parmer--30, Randall--10, Swisher--300, Briscoe--60, Floyd--1, Hale--10, Moore--10, Ochiltree--1, and Potter--5. (Hoelscher et al.). OKLAHOMA - Counts per 0.3 row m by county: Blaine, Payne, Logan, Kingfisher, Oklahoma, Canadian, and Grady (4 wheat fields per county) --0 in 9 fields, 1-3 in 17 fields, and Kingfisher county with averages of 5 and 25 in 2 fields; Custer and Washita--light (5-12) in most fields but 1 field in Washita averaged 75, and 1 in Custer averaged 60; Major--0 in 3 fields; and Garfield--1-3 in 1 field. (Arnold).

AN APHID (Rhopalosiphum padi) - TEXAS - Counts per 0.3 row m (row ft) March 13 by county: Archer, Baylor, and Hardeman--1-28, and Foard--7-50. (Boring). CALIFORNIA - Riverside County--this species and an APHID (Acyrtosiphon dirhodum) 5 per sweep in 16-ha (40-acre) field of oats at Perris. (Storm).

ENGLISH GRAIN APHID (Macrosiphum avenae) - FLORIDA - Alachua County--averaged about 1 per sweep on 30 to 45-cm (12 to 18-inch) oats at Gainesville. (Mead).

## TURF, PASTURES, RANGELAND

### INSECTS

AN ARMORED SCALE (Aspidiella sacchari) - FLORIDA - New county record. Hillsborough County--infestation scattered on stems and roots of Paspalum notatum (Bahagrass) near Plant City, January 7, 1978. Collected by T. Felty. Determined by A.B. Hamon. (Mead).

## FORAGE LEGUMES

### INSECTS

ALFALFA WEEVIL (Hypera postica) - OKLAHOMA - Stephens County--1st and 2nd instar larvae ranged 1-3 per terminal in 10% of terminals in 1 of 3 alfalfa fields, March 17. Current counts by county: Garvin--small larvae ranged 1-2 per 20 terminals, Washita--infested 1% of terminals in 1 field, and Muskogee--1 larva swept from field. (Arnold). KENTUCKY - Preliminary results of egg sampling show adults currently laying eggs. Addition of spring-laid eggs to high numbers of fall-laid eggs indicates possibility of heavy larval populations by mid to late April. (Sloderbeck). NORTH CAROLINA - Wake and Chatham Counties--larval infes-



tations averaged 10% on alfalfa, some alfalfa weevil infestations with 30% of tips damaged. Larvae small and damage very light in all fields examined. (Hunt). FLORIDA - Alachua County--population remained very light, less than 1 per sweep on alfalfa at Gainesville. (Mead).

ARMY CUTWORM (Euxoa auxiliaris) - OKLAHOMA - Woodward County--averaged about 1 per 0.09 sq m (sq ft) in 1 alfalfa field; damage in spots. (Arnold).

ALFALFA CATERPILLAR (Colias eurytheme) - OKLAHOMA - First of season. Muskogee County--1 larva swept from alfalfa on March 23. (Arnold).

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - CALIFORNIA - Kern County--nymphs and adults of this species and PEA APHID (A. pisum) 100 per stem on alfalfa at Bakersfield. (Bentley). NEVADA - Clark County--both species ranged 300-500 per sweep on hay alfalfa in Virgin Valley; damage moderate. A. kondoi ranged 50-98 per sweep, averaged 80% of populations. (Hoff, LeBas).

PEA APHID (Acyrtosiphon pisum) - NEW MEXICO - Counts per alfalfa plant by county: Eddy--3-5 in Loving area and 2 in Carlsbad area, and Chaves--2-5 in Roswell area and 6-20 in EastGrandPlains area. (Nielsen). OKLAHOMA - Washita County--light to moderate in alfalfa, up to 50 per 30 row cm (row ft) in fall-planted field. Wagoner and Muskogee Counties--averaged less than 1 per 10 sweeps. (Arnold). FLORIDA - Alachua County--about 8,000 collected in 100 sweeps of 45 to 55-cm (18 to 22-inch) alfalfa at Gainesville. (Mead).

## **COTTON**

### INSECTS

BOLL WEEVIL (Anthonomus grandis) - TEXAS - Lower Rio Grande Valley--12 adults per trap per 2 days by March 17. (Cocke et al.).

BOLLWORM (Heliothis zea) - TEXAS - Cameron and Hidalgo Counties--each with 2 females and 1 male per trap per night by March 17. (Cocke et al.).

## **DECIDUOUS FRUITS AND NUTS**

### INSECTS

PEAR PSYLLA (Psylla pyricola) - WASHINGTON - North-central area--egg laying underway March 10 in Rock Island, Baker Flat, and Orondo areas of Douglas County and next to river in Wenatchee area, Chelan County; by March 15 up Wenatchee River Valley to west Cashmere, Chelan County, and Brays Landing district in Douglas County and up Entiat Valley by March 16. Dormant sprays commenced on these dates within areas specified. (Rushmore).

EASTERN TENT CATERPILLAR (Malacosoma americanum) - NORTH CAROLINA - Coastal Plains--larval colonies began developing March 20. Hatching commenced over Coastal Plains and eastern Piedmont. Webs averaged about 26 sq cm (4 sq inches) on Prunus serotina (black cherry). (Hunt).

A TORTRICID MOTH (Archips rosanus) - OREGON - Benton County--overwintered eggs began hatch March 17 on filbert trees being monitored at Corvallis. (Niazee, Fisher).

## **SMALL FRUITS**

### INSECTS

WESTERN TENT CATERPILLAR (Malacosoma californicum) - OREGON - Polk County--larvae hatched on gooseberry in west Salem 2 weeks ahead of normal. (Penrose).

TWOSPOTTED SPIDER MITE (Tetranychus urticae) - OREGON - Multnomah and Clackamas Counties--reproductive females up to 50 per leaf on raspberries, some damage, up to 500 eggs on many leaves. (Penrose).

## **FOREST AND SHADE TREES**

### INSECTS

SPRING CANKERWORM (Paleacrita vernata) - MINNESOTA - Ramsey County--first of season. Adult females moving up elm trees at St. Paul. (Sreenivasam).

A SPIDER MITE (Oligonychus subnudus) - CALIFORNIA - Santa Barbara County--larvae and adults about 50 per stem, heavily damaged Japanese stone pine at Solvang. (Davidson, Loyall).

## **MAN AND ANIMALS**

### INSECTS

FACE FLY (Musca autumnalis) - OKLAHOMA - First of season. Osage County--adults emerged from overwintering quarters March 22. (Arnold).

## **HOUSEHOLDS AND STRUCTURES**

### INSECTS

EASTERN SUBTERRANEAN TERMITE (Reticulitermes flavipes) - MISSOURI - First of season. Scott County--winged adults swarmed from abandoned structure at Sikeston. (Munson).

## **FEDERAL AND STATE PROGRAMS**

### INSECTS

SCREWORM (Cochliomyia hominivorax) - No cases reported from continental United States March 5-11. (Meadows). Total of 44 cases confirmed in portion of Barrier Zone in Republic of Mexico. Total of 332 cases reported in Mexico south of Barrier Zone. (Williams, Smith). Number of sterile flies released this period totaled 41,333,000 as follows: Texas 25,401,000, Arizona 14,096,000, California 1,836,000. (Meadows). Total of 145,370,800 sterile flies released within Barrier of Mexico. (Williams, Smith).

## **CORRECTIONS**

CPPR 3(11):85, 87 - Delete ALFALFA WEEVIL for Kansas.

## HAWAII PEST REPORT

New United States Record - Small infestation of a COMPOSITE (Enydra martima (Humboldt, Bonpland, and Kunth) de Candolle) on less than 9 sq m (100 sq ft) in Keehi Lagoon Park, Oahu. Plants first discovered by T. Watanabe on January 11, 1978. Determined by H. St. John. Two other infestations later discovered at Sand Island on less than 9 sq m and in Honolulu Airport area on a few ha (acres) on Oahu. Noxious potential being evaluated. (Shinbara, Watanabe). Native to Pacific coast of tropical South America. Related genera serious in U.S. (Duke).

General Vegetables - LEAFMINER FLIES (Liriomyza spp.) heavy on 1 ha (3 acres) each of bearing tomatoes and seedling watermelons at Kihei, Maui. Heavily mined about 50-75% of tomato leaves; infested leaves, petioles, and stems of watermelon seedlings (several weeks old). (Miyahira et al.). New host for COCONUT SCALE (Aspidiotus destructor) in State. Light on Dioscorea sp. (a yam) in community garden at Pearl City, Oahu. Collected by L. Nakahara, March 10, 1978. Determined by S. Higa. (L. Nakahara).

Fruits and Nuts - COCONUT LEAFROLLER (Hedylepta blackburni) infestations and damage heavy on roadside coconut trees (10+ trees) at Olowalu, Maui. (Miyahira, L. Nakahara).

Turf and Pasture - New island record for a SKIPPER (Hylephila phylaeus). Two adult females recovered from student collections by N. Miyahira on Maui. Both collected at Kahului, the earliest by R. Tamashiro on February 9, 1978. An adult recently sighted at Kahului. Negative surveys of turf grass and various adjacent blossoms there, at Kihei, and at Lahaina indicate recent arrival of pest. Determined by N. Miyahira. (Miyahira, L. Nakahara).

### LIGHT TRAP COLLECTIONS

CALIFORNIA - Bellota, 3/14, 5.0-19°C (41-67°F), BL - ARMYWORM (Pseudaletia unipuncta) 1. Stockton, 3/16, 8.9-23°C (48-74°F), BL - Armyworm 1. FLORIDA - Gainesville, 3/16-22, BL - Armyworm 1, GRANULATE CUTWORM (Feltia subterranea) 12. TEXAS - College Station - 3/15-21, BL - Armyworm 11, BLACK CUTWORM (Agrotis ipsilon) 1, FALL ARMYWORM (Spodoptera frugiperda) 1.

### DETECTION

#### NEW UNITED STATES RECORD

#### WEEDS

A COMPOSITE (Enydra martima Humboldt, Bonpland, and Kunth) de Candolle) - HAWAII - Oahu Island. (p. 130).

#### NEW COUNTY AND ISLAND RECORDS

#### INSECTS

AN ARMORED SCALE (Aspidiella sacchari) - FLORIDA - Hillsborough. (p. 127).

A SKIPPER (Hylephila phylaeus) - HAWAII - Maui. (p. 130).

# Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff  
Plant Protection and Quarantine Programs, USDA

	<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Destination</u>
<u>Xanthomonas</u> sp. a bacteria Det. F. Pollack	bacterial	on leaves of <u>Aglaonema</u> plants	Costa Rica	San Juan	PR
<u>Adoretus sinicus</u> Burmeister Chinese rose beetle Det. R. Kunishi	adult	in aircraft holds	Hawaii	Hilo	CA
<u>Aleurothrixus floccosus</u> (Maskell) woolly whitefly Det. R. Eads	pupal	on citrus leaves from baggage	Mexico	El Paso	CA
<u>Copturus</u> sp. a weevil Det. D.M. Anderson	larval pupal	in mahogany lumber	Brazil	San Juan	PR
<u>Dacus xanthodes</u> Braun a fruit fly Det. R. Foote	larval	in breadfruit from cargo	American Samoa	Honolulu	CA
<u>Pityogenes chalcographus</u> (Linnaeus) a scolytid beetle Det. R.F. Bollinger	adult larval	in crating with machinery	France	Charleston	SC
<u>Sirex noctilio</u> (Fabricius) a siricid wasp Det. D.R. Smith	adult	in crating with machinery	Spain	Greenville	USA
<u>Urocerus gigas gigas</u> (Linnaeus) a siricid wasp Det. D.R. Smith	adult larval	in crating with machinery	West Germany	New York	IL





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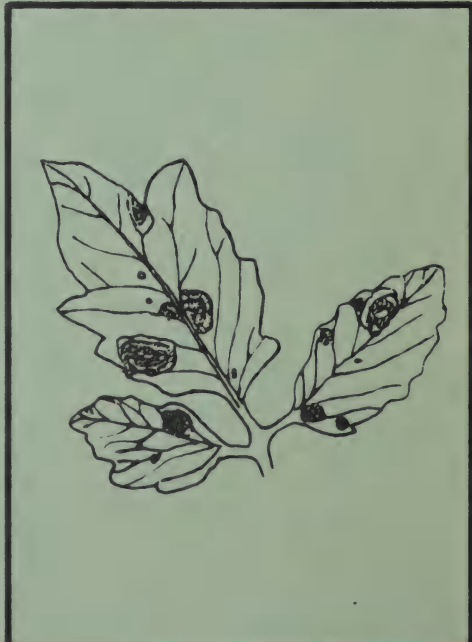
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Vol. 3 No. 14

April 7, 1978

# Cooperative PLANT PEST REPORT

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This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

*Cooperative Plant Pest Report* supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

*Correspondence should be directed to:*

*CPPR*

New Pest Detection and Survey Staff  
Plant Protection and Quarantine Programs  
Animal and Plant Health Inspection Service  
U.S. Department of Agriculture  
Federal Building #1  
Hyattsville, Maryland 20782

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## COOPERATIVE PLANT PEST REPORT

### HIGHLIGHTS

#### Predictions

CHINCH BUG expected to cause more widespread problems on corn and sorghum in eastern Kansas this season. (p. 135).

#### Detection

● A REDUVIID BUG in Hawaii is new to the Western Hemisphere. (p. 136).

New island records on page 137.

#### Some First Occurrences of the Season

GREENBUG flight and ALFALFA WEEVIL larvae in Kansas.

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Reports in this issue are for the week ending March 31 unless otherwise indicated.

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## **CORN, SORGHUM, SUGARCANE**

### **INSECTS**

CHINCH BUG (Blissus leucopterus leucopterus) - KANSAS - Results of 1978 winter survey of overwintered populations on bunchgrass in eastern area heavier than in 1955-1958 outbreak years. Outlook for 1978 of more widespread problems on corn and sorghum in eastern area than in 1977. Expected to be most severe in Cloud, Washington, Marshall, Nemaha, Clay, Riley, Pottawatomie, Dickinson, McPherson, Marion, and Harvey Counties; averages in these counties ranged 1,109-15,454 per 0.09 sq m (sq ft). (Bell et al.).

## **SMALL GRAINS**

### **INSECTS**

ARMY CUTWORM (Euxoa auxiliaris) - KANSAS - Pratt and Barber Counties--larvae up to 1.5 per 0.09 sq m (sq ft) along wheat field borders. (Salsbury, Bell).

GREENBUG (Schizaphis graminum) - TEXAS - Counts per 0.3 row m (row ft) of small grains March 20 by county: Rolling Plains area--increased, Archer and Baylor--8-124, Hardeman--17-122, Foard and Wilbarger--35-200, Wichita--5-150 and 238, Knox and Fisher--increased, damage in spots. (Boring). KANSAS - Sumner and Harper Counties--populations in winter wheat eliminated by cold winter weather but surveys March 14 showed trace survival. (Bell). First verified flight of season. Ellis County--winged adults trace on 7.6-cm (3-inch) wheat in 1 field near Hays. (Bell, Rhine).

## **TURF, PASTURES, RANGELAND**

### **INSECTS**

GLASSY CUTWORM (Crymodes devastator) - IDAHO - Kootenai County--larvae 1-3 per 0.09 sq m (sq ft) in bluegrass seed fields near Worley, March 20. (Wright, Homan).

## **FORAGE LEGUMES**

### **INSECTS**

ALFALFA WEEVIL (Hypera postica) - KANSAS - First larvae of season. Elk and Montgomery Counties--hatched on alfalfa. (Hilbert, White).

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - CALIFORNIA - San Joaquin County--this species and an ALFALFA WEEVIL (Hypera sp.) feeding on young alfalfa in 28-ha (70-acre) field at Clements, March 10, field browned March 6, treated March 13. By March 27, aphids nondetectable, weevils fewer than 1 per stem, and plant growth good. (Brown).

ARMY CUTWORM (Euxoa auxiliaris) - KANSAS - Larval averages per 0.09 sq m (sq ft) of seedling alfalfa 2.5 cm (1 inch) tall, 1 field each, by county: Pratt--0.8 near Iuka and Stafford--1.0 in field 8 km (5 miles) west of Stafford. Edwards County--larvae averaged 0.4 per 0.3 row m (row ft) in Austrian winter field peas near Belpre. (Salsbury, Bell).

## BENEFICIAL ORGANISMS & THEIR ENEMIES

### INSECTS

A COLEOPHORID MOTH (*Coleophora parthenica*) - CALIFORNIA - Sacramento County-- first recovery, feeding on Russian thistle in north Sacramento along U.S. Highway 50 and Mayhew Drive. It overwintered. First sign of colonization. Fresno County--infested 1,036 sq km (400 sq miles) of Russian thistle in Coalinga area. Survived in area since release in 1974. (T. Allen).

### FEDERAL AND STATE PROGRAMS

### INSECTS

SCREWORM (*Cochliomyia hominivorax*) - No cases reported from continental United States March 12-18. (Meadows). Total of 175 cases confirmed in portion of Barrier Zone in Republic of Mexico. Total of 494 cases reported in Mexico south of Barrier Zone. (Williams, Smith). Number of sterile flies released this period totaled 40,004,000 as follows: Texas 25,908,000, Arizona, 14,096,000. (Meadows). Total of 251,647,000 sterile flies released within Barrier of Mexico. (Williams, Smith).

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### HAWAII PEST REPORT

New Western Hemisphere Record - One adult of a REDUVID BUG (*Gallobelgicus saevis* Bergroth) collected from light trap at Hickam Air Force Base, Oahu, by J.W. Beardsley, December 24, 1977. Since then, 6 more adults collected from light traps at Hickam Air Force Base and Waipahu, Oahu. Determined by J.L. Herring. Occurs in the Philippines. Biology unknown. (L. Nakahara).

Ornamentals - New island record for WEST INDIAN FLATID (*Melormenis antillarum*). Specimen collected from *Jasminum* sp. (pikake) at Wailuku, Maui, by R. Tamashiro, March 12, 1978. All stages light on cultivated *Asystasia gangetica* (asystasia) at Kahului, Maui, on March 13. Another moderate infestation in weedy *Solanum nigrum* (black nightshade) about 0.4 km (0.25 mile) away. Determined by S. Higa. (Miyahira, Nakahara).

Man and Animals - New island record for WESTERN YELLOWJACKET (*Vespa pensylvanica*). One worker collected in State Park in Iao Valley, Maui, by R. Tendo, March 20, 1978. Determined by S. Higa. (Miyahira).

### LIGHT TRAP COLLECTIONS

CALIFORNIA - La Grange, 3/21, BL - ARMYWORM (*Pseudaletia unipuncta*) 1. Stockton, 3/20, 14-21°C (57-70°F), BL - Armyworm 3. FLORIDA - Gainesville, 3/23-28, BL - GRANULATE CUTWORM (*Feltia subterranea*) 9, SALT MARSH CATERPILLAR (*Estigmene acrea*) 2. KANSAS - Garden City, 3/21-27, BL - BLACK CUTWORM (*Agrotis ipsilon*) 6, YELLOWSTRIPED ARMYWORM (*Spodoptera ornithogalli*) 2. Haviland, 3/27-31, BL - Armyworm 7, black cutworm 41, VARIEGATED CUTWORM (*Peridroma saucia*) 52. TEXAS - College Station, 3/22-28, BL - Armyworm 9.

## **DETECTION**

### NEW WESTERN HEMISPHERE RECORD

#### INSECTS

A REDUVIID BUG (Gallobelgicus saavis Bergroth) - HAWAII - Oahu. (p. 136).

### NEW ISLAND RECORDS

#### INSECTS

WEST INDIAN FLATID (Melormenis antillarum) - HAWAII - Maui. (p. 136).

WESTERN YELLOWJACKET (Vespula pensylvanica) - HAWAII - Maui. (p. 136).



# Pest Interceptions of Quarantine Significance at Ports of Entry

## Plant Importation and Technical Support Staff Plant Protection and Quarantine Programs, USDA

	<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Destination</u>
<u>Ceratocystis</u> sp. a fungus Det. F. Pollack	perfect	on debris with <u>pinus</u> pinea seed	Italy	Hoboken	CA
<u>Puccinia urbaniana</u> P. Henn. a rust Det. H.L. Rubin	uredial	on <u>Stachytarpheta</u> cut flowers from baggage	Jamaica	Miami	FL
<u>Cyclocephala</u> sp. a scarab Det. R.P. Higgins	adult	with <u>Chrysanthemum</u> <u>from cargo</u>	Colombia	Miami	FL
<u>Evergestis forficalis</u> (F.) a pyralid moth Det. D. Weisman	larval	on cabbage from cargo	Netherlands	New York	USA
<u>Tetropium castaneum</u> (L.) a cerambycid beetle Det. T. Spilman	adult	in crating with glass	Rumania	Wilmington	NC
<u>Trogoderma granarium</u> Events Khapra beetle Det. D. Anderson	larval	with bales of mops	India	Charleston	SC
<u>Helix aspersa</u> Muller brown garden snail Det. R. Munkittrick	juvenile	on marble and container van	Italy	Tampa	FL
<u>Theba pisana</u> (Muller) white garden snail Det. R. Munkittrick	adult	on crates of marble	Italy	Houston	TX








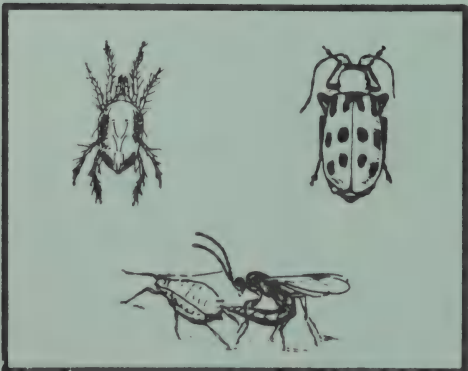
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## **COOPERATIVE PLANT PEST REPORT**

### **HIGHLIGHTS**

#### Current Conditions

BOLL WEEVIL very light in South Carolina for second year. (p. 143).

Controls recommended for EASTERN TENT CATERPILLAR. (p. 145).

#### Detection

An ARMORED SCALE is new to Hawaii (p. 147).

For new county records see page 147.

#### Some First Occurrences of the Season

ALFALFA WEEVIL larvae in Kentucky. IMPORTED CABBAGEWORM adults in Maryland.

Reports in this issue are for the week ending April 7 unless otherwise indicated.

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## CORN, SORGHUM, SUGARCANE

### INSECTS

GREENBUG (*Schizaphis graminum*) - TEXAS - Hidalgo County--1-5 per sorghum plant at Faysville on March 31. (Cocke et al.). Williamson and Milam Counties--migration from small grains to sorghum heavy during March 23-27. Infestations ranged 3-30 per plant March 29. (Glodt).

YELLOW SUGARCANE APHID (*Sipha flava*) - TEXAS - Northern Cameron County--5-30 per 10 to 20-cm (4 to 8-inch) sorghum plant on March 31. Hidalgo County--fewer than 1 per plant. Willacy County--economic on seedlings. (Cocke et al.).

EUROPEAN CORN BORER (*Ostrinia nubilalis*) - ILLINOIS - Overwintering survival about average statewide. Survival, 75% in many fields, ranged from 50% to near 100%. Bird predation heavy in most areas. (Black). DELAWARE - No pupation of overwintering borers as of April 3. Start of pupation considerably delayed compared to most years. (Burbutis, Kelsey).

### SMALL GRAINS

#### DISEASES

SOIL-BORNE WHEAT MOSAIC 'TOBAMOVIRUS' - KANSAS - Harper and Sumner Counties--most obvious symptoms south of U.S. Highway 160. Estimated area of fields with infected plants by county March 31: Harvey--trace to 5%, Sedgwick--1-30%, Kingman--trace, Harper--trace to 50%, Sumner--5-60%, Reno--5-15%, Stafford--80%, Ellis--5%, McPherson--trace to 5%, Saline--5-50%, Dickinson--trace-5%, Riley--trace, Pottawatomie--trace to 5%, Shawnee--trace, and Allen--40%. (Sim).

### INSECTS

GREENBUG (*Schizaphis graminum*) - TEXAS - Counts per 0.3 row m (row ft) of small grains by county: Williamson and Milam Counties--75-300 on March 29. (Glodt). Blacklands area--1,000+ in spots on March 24. (Hoelscher). Archer, Baylor, Fisher, Foard, Hardeman, and Wichita Counties--200-300 in heavily infested fields on March 27. Wilbarger and Young Counties--300 in spots. (Boring). OKLAHOMA - Average (and range) per 0.3 row m in wheat by county week ending March 31: Kiowa--35 (0-45), Greer--48 (0-85), Jackson--65 (0-320), and Payne--3 in 3 fields. (Arnold).

CORN LEAF APHID (*Rhopalosiphum maidis*) - ARIZONA - Pinal County--adults 8 per 100 sweeps of small grains at Casa Grande and Eloy. (Brooks).

PEA APHID (*Acyrtosiphon pisum*) - ARIZONA - Pinal County--adults 32 per 100 sweeps of small grains at Casa Grande and Eloy. (Brooks).

THREECORNERED ALFALFA HOPPER (*Spissistilus festinus*) - ARIZONA - Pinal County--adults 20 per 100 sweeps of small grains at Casa Grande and Eloy. (Brooks).

ARMYWORM (*Pseudaletia unipuncta*) - FLORIDA - Alachua County--larvae 9 per 100 sweeps of oats at Gainesville. (Mead).

### TURF, PASTURES, RANGELAND

#### INSECTS

GRASS BUGS (*Labops* spp.) - NEW MEXICO - Rio Arriba County--1st instar nymphs on crested wheatgrass near Llaves. Preliminary survey show hatch just underway. Potential for heavy populations. (Nielsen).

## FORAGE LEGUMES

### INSECTS

ALFALFA WEEVIL (Hypera postica) - NEW MEXICO - Eddy County--larvae averaged 25-75 per alfalfa plant in Artesia area week ending March 31. (Campbell). Larvae per 25 sweeps by county: Eddy--10-209 at Lakewood and 25-30 in Malaga and Otis areas and Chaves--6-10 at Roswell and 8-10 at East Grand Plains. (Nielsen). Eddy County--current damage extensive in alfalfa fields in Artesia area, many fields treated twice. (Campbell). OKLAHOMA - Percent alfalfa terminal infestation (and average) by county week ending March 31: Kiowa--7-35 (15%), Greer--18-63 (27%), Jackson--10-45 (30%), Tillman--4-23 (15%), and Garvin--26-40. (Arnold). ARKANSAS - Washington County--larvae (2nd to 4th instar) at moderate levels (16-40) per 0.09 sq m (sq ft) in alfalfa field, new growth about 20 cm (8 inches) tall. (Dumas). MISSOURI - Very small larvae, probably 2nd instar, averaged 6 per 10 alfalfa stems in Washington County and 4 per 10 stems in Crawford County week ending April 1. Very little new growth noted in eastern and south-central areas. (Munson). TENNESSEE - Populations at or above control levels in 3 of 4 fields. If populations remain the same another week, controls will be needed for good first hay cutting. (Gregory). Larvae, 1st and 2nd instar, averaged 4 per 50 terminals in western area fields; stands in these fields poor. (Locke).

KENTUCKY - First alfalfa weevil larva of season in Todd County on March 28. Egg averages per 0.09 sq m (sq ft) of alfalfa by county on March 14: Adair--135, Barren--384, and Washington--288. Counts much higher (averaged about 10 per 0.09 sq m) than same time last year. (Christensen, Sloderbeck). FLORIDA - Alachua County--about 1,700 larvae and 21 adults collected in 100 sweeps of alfalfa at Gainesville. (Mead). SOUTH CAROLINA - Newberry and Greenwood Counties--larvae moderate in samples from selected alfalfa fields during last week of March. (Hearn). Newberry, Greenwood, Greenville, Anderson, and Pickens Counties--populations currently increased in alfalfa, all instars collected in each county. Infestation heavy in Newberry and Greenwood Counties. Some controls recommended. (Hearn, Griffin). NORTH CAROLINA - Larval activity increased week ending March 31. Wake and Chatham Counties--tip infestation reached 30% in 5 samples from fields. Wake County--tip infestations averaged 25% in 2 fields. Treatments expected to start April 1. (Hunt). WEST VIRGINIA - Mason County--1st instar larvae present in alfalfa fields. Tip infestation 3% in 8 to 10-cm (3 to 4-inch) alfalfa. (Hacker).

LESSER CLOVER LEAF WEEVIL (Hypera nigrirostris) - TENNESSEE - Western area--populations moderate to heavy on clover; 10% of leaflets damaged. (Locke).

ARMY CUTWORM (Euxoa auxiliaris) - NEVADA - White Pine County--larvae caused heavy damage to an unspecified acreage of hay alfalfa in Spring Valley. (Joy). KANSAS - Rooks County--larvae averaged 2 per 0.09 sq m (sq ft) in field and Pawnee County--ranged 4-9 per 0.09 sq m. Spring growth held back in seedling fields with thin stands. (Bell).

SPOTTED ALFALFA APHID (Therioaphis maculata) - NEW MEXICO - Eddy County--averaged 15-20 per 25 sweeps in alfalfa near Malaga week ending March 31. (Riddle). Current populations scattered and heavy in alfalfa fields. (Campbell). Dona Ana County--populations heavy in alfalfa on experimental farm, south of Las Cruces. (Wilson). FLORIDA - Alachua County--about 300 collected in 100 sweeps of alfalfa at Gainesville. (Mead).

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - NEVADA - Esmeralda County--mainly this species and PEA APHID (A. pisum) caused heavy damage, averaged 300 per stem on 16 ha (40 acres), to 15-cm (6-inch) hay alfalfa in Fish Lake Valley week ending March 31. (Hill). Infested acreage in Fish Lake Valley increased currently. Predators light, plants chlorotic and turning brown in areas of some fields. (Hertz et al.). Clark County--mainly A. kondoi averaged 200 per sweep on 64.8 ha (160 acres) of hay alfalfa in Sandy Valley. (Zoller). Churchill County--current infestations of mainly this species and A. pisum ranged 500-1,000 (averaged 730) per sweep on 810+ ha (2,000+ acres) of 10 to 15-cm (4 to 6-inch) hay alfalfa in Stillwater area. Damage evident in heavily infested fields. Averaged 150 per sweep in lightly infested fields. Predators almost nil; at least 60% of acreage needed treatment. (Wheeler). Washoe County--infestations heavy on hay alfalfa at Sparks, heavily damaged yellowish-brown plants in fields. (Hunt et al.). Lyon County--heavy infestations caused moderate damage to 32 ha (80 acres) of hay alfalfa at Yerington. (Pursel). Churchill and Pershing Counties--populations increased on hay and seed alfalfa in Dixie Valley. (Munk et al.). ARIZONA - Pinal County--13 adults per 100 sweeps of alfalfa at Casa Grande. (Brooks).

PEA APHID (Acyrtosiphon pisum) - NEW MEXICO - Chaves and Eddy Counties--populations ranged 20-300+ per 25 sweeps in alfalfa week ending March 31. Heavy A. pisum and Hypera postica (alfalfa weevil) populations hindered plant growth. (Riddle, Campbell). Population continued heavy in many alfalfa fields week ending April 7. (Campbell). ARKANSAS - Sebastian County--relatively heavy in alfalfa. (Barnes). FLORIDA - Alachua County--about 1,050 specimens taken in 100 sweeps of alfalfa at Gainesville. (Mead).

THREECORNERED ALFALFA HOPPER (Spissistilus festinus) - ARIZONA - Pinal County--adults 31 per 100 sweeps of alfalfa at Casa Grande. (Brooks).

## SOYBEANS

### INSECTS

GREEN STINK BUG (Acrosternum hilare) - SOUTH CAROLINA - Barnwell County--populations much heavier on soybeans than in 1977. (Jones).

SOUTHERN GREEN STINK BUG (Nezara viridula) - SOUTH CAROLINA - Barnwell County--light populations on soybeans expected again this year. (Douglass).

## COTTON

### INSECTS

BOLL WEEVIL (Anthonomus grandis) - SOUTH CAROLINA - Florence, Darlington, and Marlboro Counties--overwintering populations extremely light for second consecutive year as shown by surface wood trash examinations during mid-March. Live weevils averaged 55 per 0.4 ha (acre), 59% less than previous winter. Current survival of 108 weevils per 0.4 ha in Florence County lightest since sampling began in 1938. (Douglass).

## SUGAR BEETS

### INSECTS

PEA APHID (Acyrtosiphon pisum) - ARIZONA - Pinal County--adults 51 per 100 sweeps of sugar beets at Eloy. (Brooks).



GREEN PEACH APHID (Myzus persicae) - ARIZONA - Pinal County--11 adults per 100 sweeps of sugar beets at Eloy. (Brooks).

CABBAGE LOOPER (Trichoplusia ni) - ARIZONA - Pinal County--larvae 78 and eggs 19 per 100 sweeps of sugar beets at Eloy. (Brooks).

CORN EARWORM (Heliothis zea) - ARIZONA - Pinal County--eggs and larvae 4 per 100 sweeps of sugar beets at Eloy. (Brooks).

## COLE CROPS

### INSECTS

BOLLWORM (Heliothis zea) - ARIZONA - Maricopa County--eggs 2 per 3.1 m (10 per ft) of lettuce at Aguila. Pinal County--larvae 4 and eggs 20 per 3.1 m at Casa Grande and Eloy. (Brooks).

IMPORTED CABBAGEWORM (Pieris rapae) - ARKANSAS - Washington County--adults readily apparent and egg laying heavy on cabbage sprouts growing from one-year-old plants on university farm. (Yearian). MARYLAND - Prince Georges County--first adult of the season noted on cole crops at College Park on April 4. Significant egg laying expected on cole crops. (Hellman, Pinto).

## CUCURBITS

### INSECTS

BET LEAFHOPPER (Circulifer tenellus) - ARIZONA - Maricopa County--adults 10 per 50 watermelon plants at Cashion. (Pilling).

## CITRUS

### INSECTS

CITRUS THRIPS (Scirtothrips citri) - ARIZONA - Yuma County--adults 45 and nymphs 20 per grapefruit leaf on ends where blooms shedding in Yuma Valley. (Berens).

## SMALL FRUITS

### INSECTS

GREENHOUSE WHITEFLY (Trialeurodes vaporariorum) - CALIFORNIA - Fresno County--populations increased in commercial strawberries (5-6 pupal cases per leaf) at Fresno. (Dunnegan).

## ORNAMENTALS

### INSECTS

ACUMINATE SCALE (Kilifia acuminata) - FLORIDA - New county record. Franklin County--infestation on stems and leaves of uncultivated shrub along roadside near St. George Island, April 5, 1978. Collected by Q.G. Anglin, A.E. Graham, and J.J. McRitchie. Determined by A.B. Hamon. (Mead).

AN ENGRAVER BEETLE (Ips paraconfusus) - OREGON - Clackamas County--adults taken from 10-year-old Pinus contorta (lodgepole pine) at Canby. Of 12 trees sampled all were infested. (McLoughlin). This beetle previously recorded as I. confusus (California fivespined ips) and can cause serious damage. (Penrose).

## FOREST AND SHADE TREES

### DISEASES

CEDAR-APPLE RUST (Gymnosporangium juniperi-virginianae) - KANSAS - Allen County--many cedar trees in apple orchard heavily infected with galls in various stages. Some seem ready to send telial horns as soon as sufficient moisture is received. (Sim).

### INSECTS

TULIPTREE SCALE (Toumeyella liriodendri) - FLORIDA - New county records. Franklin County--adults infested stems of Magnolia virginiana (sweet bay magnolia) tree at a State Park in Ft. Gadsden, April 4, 1978. Liberty County--infestation on Magnolia virginiana along roadside April 4, 1978. Both collected by Q.G. Anglin, A.F. Graham, and J.J. McRitchie. Both determined by A.B. Hamon. (Mead).

PINE TORTOISE SCALE (Toumeyella parvicornis) - PENNSYLVANIA - Huntingdon County--adults heavily infested 10 Virginia pine trees on 0.8-ha (2-acre) plantation in Dublin Township on March 24. (Simons).

EASTERN TENT CATERPILLAR (Malacosoma americanum) - SOUTH CAROLINA - Statewide--infestations on wild cherry trees fairly heavy as usual. Emergence apparently began week of March 20 in lower counties and following week in upper counties. Various controls recommended to homeowners in some cases. (Squire, Douglass). TENNESSEE - Central and western areas--10 to 15-cm (4 to 6-inch) webs common on wild cherry trees. (Gordon, White). MARYLAND - Somerset County--first egg hatch of season noted March 30 with tents noticeable by April 4. (Hellman, Pinto).

FOREST TENT CATERPILLAR (Malacosoma disstria) - MISSISSIPPI - Oktibbeha County--larval activity decreased on cherry trees. Newly formed tents moderate. (Hepner).

SPRING CANCKERWORM (Paleacrita vernata) - KANSAS - Manhattan County--first hatch noted on crabapple. (Bell).

AN APHID (Prociphilus fraxinifolii) - CALIFORNIA - Fresno County--first appearance of nymphs on ash (8-10 per leaf) at Fresno. (Dunnegan).

## MAN AND ANIMALS

### INSECTS

MOSQUITOES - FLORIDA - Alachua County--populations seem heavier than in many years in Gainesville area. Probably due to eggs laid in dried up low spots in previous drought years being flooded by heavy rains. Mosquitoes probably more active than usual in many areas. Some species collected included Culex salinarius, Aedes vexans, and A. canadensis. (Mead). TENNESSEE - Western area--populations heavy in flooded or backwater areas. (Locke).

HORN FLY (Haematobia irritans) - FLORIDA - Alachua County--averaged 68 per animal in small beef herd at Gainesville. (Mead). MISSISSIPPI - Newton and Neshoba Counties--adults increased, 0-50+ per animal, on cattle. (Anderson).

FACE FLY (Musca autumnalis) - OKLAHOMA - Osage County--ranged 15-20 per face on 2 cattle herds near overwintering site in Burbank area week ending March 31. (Arnold).



## BENEFICIAL ORGANISMS & THEIR ENEMIES

### INSECTS

AN ICHNEUMONID WASP (Bathyplectes anurus) - KENTUCKY - About 500 pupae of this alfalfa weevil (Hypera postica) parasite released in Adair, Barren, Caldwell, Nelson, Spencer, Todd, Warren, and Washington Counties March 21-30. (Christensen, Parr).

## FEDERAL AND STATE PROGRAMS

### INSECTS

CEREAL LEAF BEETLE (Oulema melanopus) - WEST VIRGINIA - Mason County--adults fewer than 1 per 0.8 sq m (sq yd) in wild grasses and winter wheat; no eggs observed. (Hacker).

GYPSY MOTH (Lymantria dispar) - MARYLAND - New county records. Frederick County--female pupa collected July 21, 1977, under burlap band near Wolfsville. Carroll County--male pupa collected July 14, 1977, under burlap band 2 km (1 mile) northeast of Melrose. Both collected and determined by B. Handley. (Hellman, Pinto).

JAPANESE BEETLE (Popillia japonica) - MARYLAND - Baltimore County--first adult of season taken from turf near Essex on March 17. Significant emergence not expected in central counties until end of May. (Hellman, Pinto).

RED IMPORTED FIRE ANT (Solenopsis invicta) - SOUTH CAROLINA - New county record. Chesterfield County--mound found on farmland (between Jefferson and McBee) on March 27, 1978. Collected by D.C. Weeks. Determined by R.F. Bollinger. Mound was treated. (Douglass).

SCREWORM (Cochliomyia hominivorax) - No cases reported from continental United States March 19-25. (Meadows). Total of 2 cases confirmed in portion of Barrier Zone in Republic of Mexico. Total of 50 cases reported in Mexico south of Barrier Zone. (Williams, Smith). Number of sterile flies released this period totaled 37,937,200 as follows: Texas 36,658,000, California 1,279,200. (Meadows). Total of 252,055,800 sterile flies released within Barrier of Mexico. (Williams, Smith).

## LIGHT TRAP COLLECTIONS

CALIFORNIA - Bellota, 3/28, 11-22 °C (51-72°F), BL - ARMYWORM (Pseudaletia unipuncta) 3; Stockton, 3/29, 13-19°C (55-66°F), BL - Armyworm 1, VARIEGATED CUTWORM (Peridroma saucia) 1. FLORIDA - Gainesville, 3/20-4/5, BL - Armyworm 1, GRANULATE CUTWORM (Feltia subterranea) 30, YELLOWSTRIPED ARMYWORM (Spodoptera ornithogalli) 1. MISSISSIPPI - Stoneville, 3/31-4/6, 7.8-29°C (46-84°F) Armyworm 205, BLACK CUTWORM (Agrotis ipsilon) 23, CORN EARWORM (Heliothis zea) 2, SALTSMASH CATERPILLAR (Estigmene acrea) 7, TOBACCO BUDWORM (Heliothis virescens) 4, variegated cutworm 27, yellowstriped armyworm 2. TEXAS - College Station, 3/30-4/4, BL - Armyworm 6, corn earworm 1, yellowstriped armyworm 1.

## HAWAII PEST REPORT

New State Record. AN ARMORED SCALE (Chortinaspis subchortina) first collected on stems of Brachiaria mutica (paragrass) and Stenotaphrum secundatum (St. Augustinegrass) at university on Oahu Island on February 15, 1978. Collected by J.W. Beardsley. Determined by S. Nakahara. Reported in literature from Florida on S. secundatum and Andropogon littoralis (seacoast bluestem) Mexico on grass, Panama on grass and from Jamaica. (S. Nakahara). Material in the United States National Museum (USNM) collected from Arizona on S. secundatum, Texas on S. secundatum and Axonopus affinis (carpetgrass); Mississippi on Saccharum officinarum (sugarcane); Florida on Eremochloa ophiuroides (centipede grass); Bahama Island on bromeliad; Bermuda on S. secundatum, Oplismenus hirtellus (basketgrass), and A. affinis; Mexico on Musa paradisiaca sapientum (a banana); Guatemala on bromeliad; and Peru on grass. (Beardsley).

General Vegetables - Damage by LEAFMINER FLY (Liriomyza huidobrensis) heavy (primarily egg laying and feeding punctures) on 2+ ha (5+ acres) of harvesting stage head lettuce at Pulehu, Maui. (Hori, Miyahira). GREENHOUSE WHITEFLY (Trialeurodes vaporariorum) heavy on 0.10 ha (0.25 acre) of eggplant and 464.5 sq m (5,000 sq ft) of okra. A survey of 54 weed hosts in farming area showed 14 occasional or common weed species to be infested compared to 7 species during January survey. (Nagamine, L. Nakahara). CARMINE SPIDER MITE (Tetranychus cinnabarinus) heavy on 0.2 ha (0.5 acre) of eggplant, 464.5 sq m of cowpea, and 0.10 ha of yardlong beans at Kahuku, Oahu. (Nagamine, L. Nakahara).

Fruits and Nuts - BROAD MITE (Polyphagotarsonemus latus) infestations heavy and foliar damage light to moderate on 2+ ha of passion fruit at Kahuku, Oahu. (Nagamine, L. Nakahara).

## DETECTION

### NEW STATE RECORD

AN ARMORED SCALE (Chortinaspis subchortina) - HAWAII - Oahu Island. (p. 147).

### NEW COUNTY RECORDS

ACUMINATE SCALE (Kilifia acuminata) - FLORIDA - Franklin. (p. 144).

A DELPHACID PLANTHOPPER (Euides vanduzeei) - FLORIDA - Dade County--adults collected in blacklight trap in a coffee planting at Miami, November 17, 1977. Collected by H.E. von Wald and R.A. Clark. Determined by F.W. Mead. (Mead).

GYPSY MOTH (Lymantria dispar) - MARYLAND - Frederick and Carroll. (p. 146).

RED IMPORTED FIRE ANT (Solenopsis invicta) - SOUTH CAROLINA - Chesterfield. (p. 146).

TULIPTREE SCALE (Toumeyella liriodendri) - FLORIDA - Franklin and Liberty. (p. 145).

# Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff  
Plant Protection and Quarantine Programs, USDA

	<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Destination</u>
<u>Uredo ignava</u> Arth. a rust Det. F.G. Pollack	uredial	on leaves of bamboo plants	Mexico	Brownsville	TX
<u>Aspidiotus pangoensis</u> Doane & Ferris an armored scale Det. S. Nakahara	adult	on cycad plants	Fiji	Honolulu	HI
<u>Camponotus lateralis</u> Olivier an ant Det. D.R. Smith	all	with bales of cork bark	Portugal	New York	NJ
<u>Eurytoma</u> sp. a eurytomid seed chalcid Det. E. Grissell	adult	with <u>Rhynchosy- lis orchids</u> from caño	Thailand	San Francisco	TX
<u>Euscepes postfasciatus</u> (Fairmaire) West Indian sweetpotato weevil Det. D.M. Anderson	larval pupal	in sweetpotatoes from baggage	Puerto Rico	San Juan	USA
<u>Lepidosaphes ixorae</u> Cockerell & Robinson an armored scale Det. S. Nakahara	adult	on Heliconia plants from cargo	Singapore	Honolulu	TX
<u>Leucaspis pusilla</u> Loew an armored scale Det. S. Nakahara	adult	on pine branches from baggage	Israel	Boston	MA
<u>Pseudonidia trilobitiformis</u> (Green) an armored scale Det. R.P. Higgins	adult	on Hibiscus plants from baggage	Jamaica	Miami	FL







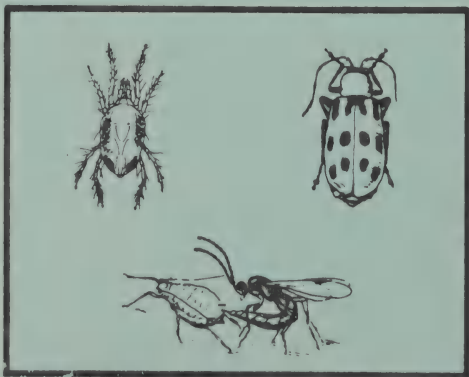
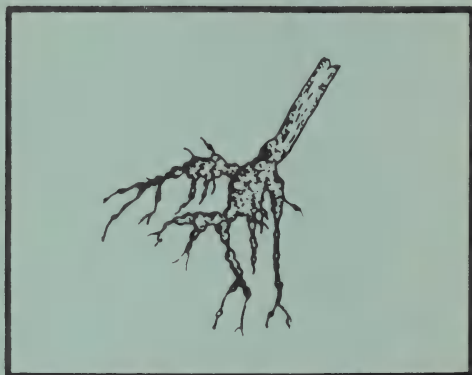


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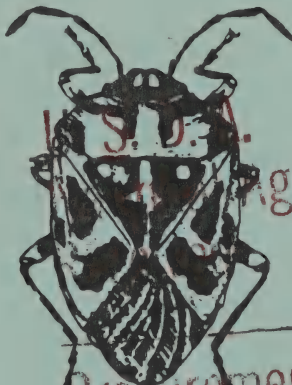
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# Cooperative PLANT PEST REPORT

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This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

*Cooperative Plant Pest Report* supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

*Correspondence should be directed to:*

*CPPR*

New Pest Detection and Survey Staff  
Plant Protection and Quarantine Programs  
Animal and Plant Health Inspection Service  
U.S. Department of Agriculture  
Federal Building #1  
Hyattsville, Maryland 20782

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## COOPERATIVE PLANT PEST REPORT

### HIGHLIGHTS

#### Current Conditions

Controls applied for ARMY CUTWORM on winter wheat in parts of Colorado and North Dakota. (p. 151).

ALFALFA WEEVIL heaviest in years in southwestern area of Utah, potentially economic in southeastern Kansas, controls needed in south-central and southeastern Missouri and middle Tennessee, and increasing in southern quarter of Illinois and south-southcentral Indiana. (p. 152-153).

BLUE ALFALFA APHID damage continued in western Nevada and counts very heavy in southwestern area of Utah. (p. 153-154).

#### Detection

- A LEAFHOPPER new to the United States found in Hawaii. (p. 157).
- CITRUS BLACKFLY detected outside of quarantine area in Florida. (p. 156).

For new county records, see page 157.

Reports in this issue are for the week ending April 14 unless otherwise indicated.

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## CORN, SORGHUM, SUGARCANE

### INSECTS

BEET ARMYWORM (*Spodoptera exigua*) - FLORIDA - Alachua County--infestation by this species and FALL ARMYWORM (*S. frugiperda*) averaged 2% on 134 ha (330 acres) of sweet corn (spike to 6-week stage) near Alachua. (Mead).

EUROPEAN CORN BORER (*Ostrinia nubilalis*) - DELAWARE - Sussex County--overwintered borer pupation underway, only 1% pupated in central area. (Burbutis, Kelsey).

NORTHERN CORN ROOTWORM (*Diabrotica longicornis*) - OHIO - Wayne County--egg survival level high in 1 corn field. Eggs still as heavy as in fall 1977 in same field. (Clement, Szatmari-Goodman).

A BILLBUG (*Sphenophorus callosus*) - NORTH CAROLINA - Extreme southern counties--activity underway. Columbus County--severely damaged 12-15 border rows in 2 fields of 5-cm (2-in) corn. (McCullen).

## SMALL GRAINS

### INSECTS

ARMY CUTWORM (*Euxoa auxiliaris*) - COLORADO - Sedgwick County--economic on winter wheat; controls applied. (Hantsbarger). KANSAS - Logan County--heaviest infestation averaged 3.6 per 0.09 sq m (sq ft) in 10-cm (4-in) wheat, visible damage light. (Brooks). NORTH DAKOTA - Golden Valley County--early instar larvae began feeding on winter wheat near Beach on April 6; controls applied. Spraying conducted near Sentinel Butte. (Mattson, Köpp).

HESSIAN FLY (*Mayetiola destructor*) - KANSAS - Butler County--eggs 0-10 per leaf on volunteer wheat and trace in nearby planted field. (Salsbury).

GREENBUG (*Schizaphis graminum*) - OKLAHOMA - Kingfisher County--averaged 100 per 0.3 row m (row ft) in wheat week of April 7. (Arnold). KANSAS - Statewide--averages ranged 0-3 per 0.3 row m on wheat from 8 cm (3 in) to joint stage in 48 fields in 27 counties. Cherokee County--heaviest average of all surveyed counties 14 per 0.3 row m on 13-cm (5-in) plants. (Shuman et al.).

AN APHID (*Rhopalosiphum padi*) - KANSAS - Counts on wheat by county: Cherokee--heaviest count averaged 9 per 0.3 row m (row ft) on 13-cm (5-in) plants; Labette--trace on 15-cm (6-in) plants (White, Bell); Cowley, Harvey, Marion, and Sumner--trace on 25-cm (10-in) to jointing; and Harper--1 per 0.3 row m (Salsbury).

CHINCH BUG (*Blissus leucopterus leucopterus*) - KANSAS - Overwintered adults per 0.3 row m (row ft) of wheat by county: Butler--averaged 6 on 23-cm (9-in) plants near Burns; Marion--1-3 in 3 fields (Salsbury); and Washington--up to 10 on 15-cm (6-in) plants. (Hilbert).

BROWN WHEAT MITE (*Petrobia latens*) - OKLAHOMA - Beaver County--heavy in many wheat fields in southern area week of April 7. Infestations and lack of moisture killed spots in some fields. Very few fields treated. Texas County--light in some fields. (Arnold).

## TURF, PASTURES, RANGELAND

### INSECTS

ARMYWORM (*Pseudaletia unipuncta*) - MISSOURI - First of season. Southeastern area--larvae noted in fescue pasture. (Munson).

### FORAGE LEGUMES

### DISEASES

LEPTOSPHAERULINA LEAF SPOT (*Leptosphaerulina briosiana*) - KANSAS - Prevalence/severity on alfalfa by county: Jefferson--40%/light, Doniphan--40%/light; Jackson--50%/light; Douglas--75%/light; Miami--100%/light; Anderson--100%/moderate; Coffey--100%/severe; Lyon--100%/light; Allen--100%/light; Cherokee--100%/light; and Marshall, Washington, Republic, and Montgomery--trace. Alfalfa 13-30 cm (5-12 in) tall. No defoliation. (Sim).

SPRING BLACK STEM (*Phoma medicaginis*) - KANSAS - Prevalence/severity on alfalfa by county: Jefferson--80%/moderate; Doniphan--25%/light; Jackson--80%/moderate; Nemaha--60%/light; Douglas--95%/moderate; Miami--100%/moderate; Allen--100%/light; Cherokee--100%/light; Elk--80%/light; Montgomery--100%/light; and Washington and Republic--trace. Alfalfa 13-30 cm (5-12 in) tall. No defoliation. (Sim).

ALFALFA DOWNY MILDEW (*Peronospora trifoliorum*) - KANSAS - Prevalence/severity on alfalfa by county: Republic--5%/light; Marion--50%/light; Harvey--30%/moderate; and Sumner--30%/light. Alfalfa 10-30 cm (4-12 in) tall. (Sim).

COMMON LEAF SPOT (*Pseudopeziza medicaginis*) - KANSAS - First of season. Prevalence/severity on alfalfa by county: Marion--100%/light; Harvey--100%/moderate; and Reno--10%/light. Alfalfa 20-28 cm (8-11 in) tall. (Sim).

EYESPOT (*Pyrenophora trichostoma*) - KANSAS - First of season. Prevalence on wheat by county: Jewell--20%, Ottawa--5%, Butler--1%, Wabaunsee--10%, and Reno and Marshall--trace. Alfalfa 10-30 cm (4-12 in) tall. (Sim).

### INSECTS

ALFALFA WEEVIL (*Hypera postica*) - UTAH - Washington County--larvae, mainly 3rd to 4th instar, light to 50 per sweep in Dixie area. Heaviest in field north of southern border, about as heavy in Hurricane area. Crop within 3 weeks of cutting. Populations heaviest in years, heavier each season for past 3 years. Utah County--adults averaged 1 per 2 sweeps at Lehi, April 5-7. (Davis). NEW MEXICO - Lea, Eddy, and Chaves Counties--larvae 0.33-2.92 per 0.09 sq m (sq ft) of alfalfa or 0.10-0.83 per stem in 11 fields. (Hayter). Dona Ana County--larvae 6-18 per 0.09 sq m in Hatch area. (Harris). Ranged 0-27 per 25 sweeps in 17 alfalfa fields from Hatch to Las Cruces. (Nielsen). OKLAHOMA - Grady and Stephens Counties--larvae ranged 30-50 per 0.09 sq m of alfalfa on April 6. Stephens County--old adults ranged up to 12 per 10 sweeps, some larvae in cocoons. Muskogee County--larvae averaged 10 per 10 sweeps. Garvin County--terminal infestations ranged 10-30%. (Arnold). KANSAS - Southeastern area and south-central counties on southern border--populations could soon reach economic proportions in scattered alfalfa fields: larvae averaged 0.5-1.9 per stem, damaged stems 28-92%, and average stem length 15-20 cm (6-12 in). (Salsbury et al.). MISSOURI - South-central and southeastern areas--larvae ranged 2-6 (averaged 3+) per stem. Feeding damage on 16-65% of plants. Damage heavy enough in some fields to begin chemical control. Alfalfa 13-30 cm (5-12 in) tall. (Munson).



ILLINOIS - Alfalfa weevil increased on alfalfa south of U.S. Highway 50. Tip feeding ranged 0-8% and 1st and 2nd instar larvae ranged 4-100 per 100 sweeps. Washington County--larvae averaged 12 per 30 alfalfa stems, stems averaged 26.4 cm (10.4 in) tall, tip feeding averaged 3.5%, adults 8.5 and larvae 62 per 100 sweeps, in 4 research fields. (Black). TENNESSEE - Middle area--17 of 19 forage legume fields above control level (1 larva per tip); controls needed. (Gregory). Madison County--averaged 3 per tip in 1 field; controls needed. (Patrick). Southwestern area--still below control levels with stands poor in all alfalfa fields checked. (Locke). KENTUCKY - Larvae increased rapidly. Washington, Lincoln, Barren, and Adair Counties--infested 84-100% of alfalfa tips (sample of 50 stems in 1 field each), larvae per infested tip ranged 2.1-9.5 (based on 10 infested stems), and alfalfa 21-25 cm (8.1-10 in) tall. About 20% of larvae 3rd instars, some 4th instars. Feeding damage fairly light in most fields, most larvae very small. Infestation levels ahead of 1976 when 40-70% of stems infested, alfalfa 25-41 cm (10-16 in), and 40% of larvae 3rd and 4th instars. (Sloderbeck). INDIANA - Harrison County--eggs doubled between April 4 and 11 to about 80 per 0.023 sq m (0.25 sq ft) in 1 alfalfa field. Harrison, Washington, and Jackson Counties--infested 32% (ranged 4-88%) of stems in 16 fields April 11-12 compared with 6% (ranged 0-25%) 7 days earlier. Larvae, mostly 1st and 2nd instars, ranged 0-16 (mean 1.8) per infested stem. Heaviest in fields well protected from wind; half of heavily infested fields lost half or more of plant population compared with 1977. Adults in every field swept, up to 0.5 adult per sweep in 1 field at dusk. Alfalfa averaged about 15 cm (6 in) compared with 5 cm (2 in) 7 days ago in these counties. (Meyer).

OHIO - Adams County--1st and 2nd instar alfalfa weevil larvae 1.5 per apical tip (economic threshold 2 per tip), damaged 70% of growing tips in field of 20 to 25-cm (8 to 10-in) alfalfa, adults 0.65 and larvae 1.6 per sweep. Scioto County--adults light, 1 egg mass (8 eggs) found in 10 randomly collected alfalfa stems. (Drees). Wayne County--adults active. (Flessell). SOUTH CAROLINA - Newberry, Greenwood, Greenville, Anderson, and Pickens Counties--alfalfa almost ready for first cutting. Populations near zero in fields treated last 7-10 days and heavy in untreated fields, many 4th instar larvae spun cocoons. (Hearn, Griffin). Anderson County--larvae averaged about 35 per sweep in untreated alfalfa field. (Griffin). VIRGINIA - Larvae hatched, spotted damage in several locations. Prince Edward County--light local infestations of very large larvae on buds of alfalfa. Montgomery County--larvae still small, no economic damage. (Allen). WEST VIRGINIA - Pendleton County--tip infestation by 1st and 2nd instar larvae 12% in alfalfa 10 cm (4 in) tall; no adults. (Hacker).

BEAN LEAF BEETLE (Cerotoma trifurcata) - OKLAHOMA - First of season. Muskogee County--averaged 1 per 10 sweeps of alfalfa week of April 7. (Arnold).

MEADOW SPITTLEBUG (Philaenus spumarius) - INDIANA - First of season. Harrison County--1st instar nymphs in several forage legume fields. (Meyer).

POTATO LEAFHOPPER (Empoasca fabae) - ILLINOIS - First of season. Washington County--1 adult in 100-sweep sample from alfalfa field. (Black).

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - NEVADA - Esmeralda County--averages of this species mostly and PEA APHID (A. pisum) ranged 300 per 15-cm (6-in) stem to 200 per 8-cm (3 in) stem; damage heavy. Treatment needed on 70-80% of 2,835 ha (7,000 acres) of hay alfalfa in Fish Lake Valley. (Hill et al.). Washoe County--heavy (counts not reported) on 486.0 ha (1,200 acres) of hay alfalfa in Palomino Valley; plants becoming chlorotic. (Oppio). Storey County--New county record. A. kondoi collected from alfalfa at Lockwood by P.C. Martinelli, April 10, 1978. Determined by R.C. Bechtel. Counts of 100-750 per sweep of hay alfalfa on 4.9 ha (12 acres) at Lockwood, damage heavy. (Martinelli).



UTAH - Washington County--blue alfalfa aphid and pea aphid very heavy, about 2,000 per sweep in 1 alfalfa field at Santa Clara, April 6-7. Moderate in Washington fields. Lighter in Hurricane area. (Davis). OKLAHOMA - New county record and first of season. Stephens County--2 winged adults swept from alfalfa 19 km (12 miles) east of Duncan on April 6, 1978. Collected and determined by R.C. Berberet. (Arnold). KANSAS - First of season. Cherokee, Montgomery, and Elk Counties--trace on alfalfa. (Bell, White).

SPOTTED ALFALFA APHID (*Therioaphis maculata*) - OKLAHOMA - Stephens County--averaged 40 per 100 sweeps in research alfalfa plot week of April 7. None found in 3 adjoining plots or in Grady County. (Arnold).

PEA APHID (*Acyrtosiphon pisum*) - NEW MEXICO - Chaves and Eddy Counties--this species and SPOTTED ALFALFA APHID (*Therioaphis maculata*) moderate to heavy on alfalfa, decreased significantly probably due to extensive chemical control, predators, parasites, and weather. (Hayter). OKLAHOMA - Counts per 10 sweeps of alfalfa by county week of April 7: Muskogee--averaged 50 and Grady--averaged 70. Range per 10 sweeps of alfalfa by county: Garvin--0-20 and Stephens--4-125. (Arnold). MISSISSIPPI - Neshoba County--500-2,000+ per 25 sweeps on 20 ha (50 acres) of alfalfa. (Anderson). INDIANA - First of season. Harrison County--swept from forage legume field. (Meyer).

## POTATOES, TOMATOES, PEPPERS

### INSECTS

COLORADO POTATO BEETLE (*Leptinotarsa decemlineata*) - FLORIDA - Hillsborough County--adults and larvae severely infested stems and leaves on 10% of 500,000 commercial *Lycopersicon esculentum* (tomato) plants at Hopewell by April 6. (Simmons, Hale). Plants sprayed. (Mead).

## COLE CROPS

### INSECTS

CABBAGE LOOPER (*Trichoplusia ni*) - NEW MEXICO - Dona Ana County--eggs in most lettuce fields, larvae averaged about 1 per 5-7 plants in Hatch Valley. (Harris).

## DECIDUOUS FRUITS AND NUTS

### INSECTS

EASTERN TENT CATERPILLAR (*Malacosoma americanum*) - MISSOURI - Southern area--larvae and tents on wild cherry, wild plum, and peach in all counties surveyed. (Munson). MISSISSIPPI - Newton, Neshoba, and Winston Counties--tents heavy on wild cherry. Defoliation to young leaves by 2nd to 4th instars light. (Anderson). FLORIDA - North-central peninsular area--larvae caused heavy (25-100%) defoliation of *Prunus* spp. (wild cherry and plum) plants by early April. Heaviest infestation, (2-10 tents per tree), mainly in Marion and Alachua Counties. (Wilkerson). SOUTH CAROLINA - Mid-State--infestations light in several peach orchards April 7; treatment recommended. (Brittains, Hays). NORTH CAROLINA - Piedmont area--severe on wild cherry, crabapple, and ornamental plum in 10 central counties. Stanly, Chatham, Randolph, and Moore Counties--averaged 3 tents per tree on 90 of 100 wild cherry trees, averaged 310 sq cm (48 sq in) in size. (Hunt). MARYLAND - Prince Georges and Anne Arundel Counties--tents averaged 10 cm (4 in) across on cherry trees, about 14 days later than in 1977. (Hellman, Pinto).

REDBANDED LEAFROLLER (Argyrotaenia velutinana) - KANSAS - First of season. Douglas County--adults in peach orchard April 12-14 in pheromone trap baited for another pest. (Hilbert, Bell). MARYLAND - Washington County--adults active April 10, about 7 days later than in 1977; no egg laying. (Hellman, Pinto).

ORIENTAL FRUIT MOTH (Grapholitha molesta) - KANSAS - First of season. Sedgwick County--adults in flight at Wichita. Shawnee County--adult trapped in peach orchard April 11-14. (Bell et al.).

REDHUMPED CATERPILLAR (Schizura concinna) - CALIFORNIA - Fresno County--first egg masses of season found in commercial plum at Sanger. (Dunnegan).

ROSY APPLE APHID (Dysaphis plantaginea) - MARYLAND - Washington County--hatched April 7 at Hancock, about 7 days later than in 1977. (Hellman, Pinto).

## **CITRUS**

### INSECTS

FRUITTREE LEAFROLLER (Archips argyrospilus) - CALIFORNIA - Fresno County--3rd and 4th instar larvae reached treatable levels in commercial citrus at Orange Cove. (Hasbrouck).

## **SMALL FRUITS**

### INSECTS

WESTERN GRAPELEAF SKELETONIZER (Harrisina brillians) - CALIFORNIA - Tulare County--first adult found at Visalia, April 9, about 21 days earlier than expected. (Goodin).

## **FOREST AND SHADE TREES**

### INSECTS

SILVERSPOTTED TIGER MOTH (Halisidota argentata) - CALIFORNIA - Siskiyou County--larvae actively fed on Douglas-fir up to 51 cm (20 in) tall over 186-sq km (72-sq miles) area. Heavily damaged upper halves of more than 50 trees at Somesbar (Louton).

SPRUCE NEEDLEMINER (Taniva albolineana) - NEBRASKA - Hall County--early infestation severe, 20-40 larval nests per tree, in commercial spruce planting of 1 to 2-m (4 to 5-ft) trees. (Jones).

SPRING CANKERWORM (Paleacrita vernata) - NORTH DAKOTA - Cass County--adult males and females moved to trees to begin egg laying at Fargo. First adult detected in south Fargo April 10. (Anderson et al.).

ELM LEAF BEETLE (Pyrrrhalta luteola) - CALIFORNIA - San Joaquin County--overwintered adults unusually heavy, fed on emerging young elm leaves, especially at Victor. Same area where elm leaf beetle fed on almonds in 1977. (Gianelli). OKLAHOMA - First of season. Payne County--adults active on elm week of April 7. (Arnold).

## MAN AND ANIMALS

### INSECTS

HORN FLY (Haematobia irritans) - OKLAHOMA - Pittsburg County--first of season on bull on March 31. Noble and Pawnee Counties--ranged 20-25 per head on heifers on April 2. (Arnold).

MOSQUITOES - MINNESOTA - Anoka, Dakota, Hennepin, Ramsey, Scott, and Washington Counties--2nd and 3rd instar larvae 1-5 per dip, 4th instar larvae in Scott County only. Most common species Aedes excrucians, A. spencerii, and A. stimulans. (Sreenivasam).

### HOUSEHOLDS AND STRUCTURES

#### INSECTS

EASTERN SUBTERRANEAN TERMITE (Reticulitermes flavipes) - KENTUCKY - Jefferson County--first swarming at Louisville on April 1. Swarms also in Trimble, Boyle, and Fayette Counties and second Jefferson County area. (Scheibner).

### FEDERAL AND STATE PROGRAMS

#### INSECTS

CEREAL LEAF BEETLE (Oulema melanopus) - WEST VIRGINIA - Randolph County--adults 12 per 25 sweeps in orchardgrass, no eggs. (Hacker). VIRGINIA - Rockbridge County--adults active since April 5. (Allen). OHIO - Pike, Scioto, Brown, and Wayne Counties and probably statewide--overwintered adults active. Pike County--adults 0.12 per sweep of wheat, averaging 15 cm (6 in) tall. Some adult feeding damage; no eggs. (Drees).

CITRUS BLACKFLY (Aleurocanthus woglumi) - FLORIDA - New county record. Okeechobee County--all stages on 3 leaves of 1 Citrus paradisi (grapefruit) tree at residence at Okeechobee. Collected by D. Ring, April 10, 1978. Determined by S. Poling; confirmed by A.B. Hamon. Infested 1 of 7 citrus trees at residence. Infestation 97 km (60 miles) outside of quarantine area, only 24-32 km (15-20 miles) from southern end of \$2 billion citrus-growing area in State. Delimiting surveys underway. (Mead). Eradication treatments in progress. (Stagner).

GRASSHOPPERS - WYOMING - Goshen County--Ageneotettix deorum and Melanoplus sp. 1st instar nymphs ranged 3-7 per 0.8 sq m (sq yd). (Hattan et al.). KANSAS - First of season. Stevens, Morton, and Stanton Counties--hatched along field borders and in waste areas. (Shuman).

SCREWORM (Cochliomyia hominivorax) - Total of 3 cases reported from continental United States March 26 to April 1, all in Arizona. (Meadows). Total of 170 cases confirmed in portion of Barrier Zone in Republic of Mexico. Total of 536 cases reported in Mexico south of Barrier Zone. (Williams, Smith). Number of sterile flies released this period totaled 29,943,000 as follows: Texas 26,091,000, Arizona 2,178,000, California 1,674,000. (Meadows). Total of 232,787,500 sterile flies released within Barrier of Mexico. (Williams, Smith).

## HAWAII PEST REPORT

New United State Records - Females, 1 each, of a LEAFHOPPER (Gyponana germari (Stal)) collected on Oahu at Enchanted Lake by L. Onaka and at Palolo by W. J. Clark, both on September 21, 1977. Also collected at Manoa and Tantalus. One male taken from light trap at Honolulu International Airport on March 14, 1978, by W. Nagamine. Determined by J.P. Kramer. Common Mexican and Central American species. Food habits unknown. (Beardsley, L. Nakahara).

General Vegetables - Infestations of LEAFMINER FLIES (Liriomyza spp.) heavy on 0.30 ha (0.75 acre) of tomatoes at peak bearing stage in Waimea Valley, Kauai. Heavily mined about 50-70% of foliage; defoliation heavy. (Murai, Sugawa).

Forest and Shade Trees - Continuing survey for EURASIAN PINE APHID (Pineus pinii) on Kauai negative on 95 pine (including bonsai) trees in communities from Kekaha to Kilauea. Total of 4 infested plants to date, confined to Molokoa subdivision in Lihue. (Sugawa).

Snail Pest - Another BROWN GARDEN SNAIL (Helix aspersa) infestation confirmed on March 16 in Kuhio Village area at Waimea, Hawaii Island. Total of 20 snails 11-31+ mm (0.43-1.2+ in) in size recovered from 1 backyard. Negative at 85-86 other residences. This infestation about 0.3 km (0.2 mile) from Puukapu truck crop farming area and 3 km (2 miles) south of original infestation site where 6,000+ snails collected to date in eradication attempt. Additional collections include one adult taken 2 km (1 mile) west of original infestation site and 1,000+ specimens taken 6-8 km (4-5 miles) southeast of original infestation on 2 adjoining properties. (Kami, Shinbara).

### LIGHT TRAP COLLECTIONS

KENTUCKY - Lexington, 4/8-12, BL - ARMYWORM (Pseudaletia unipuncta) 2; Trenton, 4/12, BL - Armyworm 4. MISSISSIPPI - Holly Spring, 4/4-11, BL - Armyworm 13. BLACK CUTWORM (Agrotis ipsilon) 2, CORN EARWORM (Heliothis zea) 3, SALTMARSH CATERPILLAR (Estigmene acrea) 1, VARIEGATED CUTWORM (Peridroma saucia) 4; Newton, 4/4-10, BL - Armyworm 25, black cutworm 2, saltmarsh caterpillar 1, variegated cutworm 5; Oktibbeha County, 4/4-11, BL - Armyworm 18, black cutworm 2, variegated cutworm 1, YELLOWSTRIPED ARMYWORM (Spodoptera ornithogalli) 1; Stoneville, 4/8-13, 7.8-31°C (46-87°F), precip. 5.26 cm (2.07 in), 2 BL - Armyworm 96, black cutworm 23, BEET ARMYWORM (Spodoptera exigua) 1, black cutworm 23, corn earworm 3, saltmarsh caterpillar 29, TOBACCO BUDWORM (Heliothis virescens) 3, variegated cutworm 11. TEXAS - College Station, 4/5-11, BL - Armyworm 5, black cutworm 1, CABBAGE LOOPER (Trichoplusia ni) 1, corn earworm 1, saltmarsh caterpillar 1, TOBACCO HORNWORM (Manduca sexta) 1.

### DETECTION

NEW UNITED STATES RECORD

### INSECTS

A LEAFHOPPER (Gyponana germari (Stal)) - HAWAII - Oahu Island. (p. 157).

NEW COUNTY RECORDS

### INSECTS

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - NEVADA - Esmeralda. OKLAHOMA - Stephens. (p. 153-154).

CITRUS BLACKFLY (Aleurocanthus woglumi) - FLORIDA - Okeechobee. (p. 156).

# Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff  
Plant Protection and Quarantine Programs, USDA

<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Destination</u>
	<u>Melampsora larici-populina</u> Kleb. a rust Det. F.G. Pollack	on leaves of <u>Populus</u> from baggage	Peru	Dulles
	<u>Phomopsis aucubicola</u> Grove. a fungus Det. F.G. Pollack	on fruit of <u>Aucuba japonica</u> from mail	Italy	Hoboken
	<u>Puccinia thaliae</u> Diet. a rust Det. F.G. Pollack	on leaves of <u>Canna</u> from baggage	Mexico	Hidalgo
	<u>Uromyces jamaicensis</u> Vesterg. a rust Det. F.G. Pollack	on leaves of <u>Bauhinia</u> from baggage	Jamaica	Kennedy Airport
	<u>Cosmopolites sordidus</u> (Germ.) banana root borer Det. D.R. Whitehead	with <u>banana</u> plants from cargo	Ecuador	Los Angeles
	<u>Isorhinus</u> sp. a weevil Det. D.R. Whitehead	with <u>Bromelia</u> plants from cargo	Mexico	San Diego
	<u>Naupactus xanthographus</u> (Germar) a weevil Det. E.J. Ford, Jr.	with grapes from cargo	Chile	Preclearance in Chile
	<u>Trogoderma granarium</u> Evert khanra beetle Det. O.E. Hunt	on food mix from baggage	India	Houston





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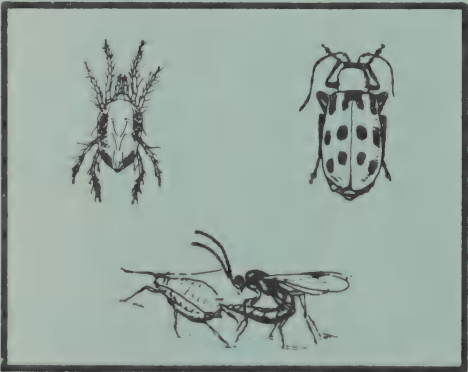
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April 28, 1978

# Cooperative PLANT PEST REPORT

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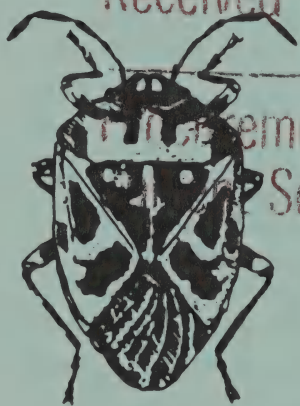
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This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

*Cooperative Plant Pest Report* supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

*Correspondence should be directed to:*

*CPPR*

New Pest Detection and Survey Staff  
Plant Protection and Quarantine Programs  
Animal and Plant Health Inspection Service  
U.S. Department of Agriculture  
Federal Building #1  
Hyattsville, Maryland 20782

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## COOPERATIVE PLANT PEST REPORT

### HIGHLIGHTS

#### Current Conditions

SOIL-BORNE WHEAT MOSAIC 'TOBAMOVIRUS' still obvious in wheat in eastern two-thirds of Kansas. (p. 161).

GREENBUG damage to wheat in parts of southwestern Oklahoma. (p. 161).

SPRING BLACK STEM and LEPTOSPHAERULINA LEAF SPOT most prevalent alfalfa diseases in eastern Kansas. (p. 162).

Controls applied for ALFALFA WEEVIL in southern half of Oklahoma. Weevil at or above control levels in parts of middle and western Tennessee but development behind 1977 in Ohio and Maryland. (p. 162-163).

TOBACCO BUDWORM needs to be watched on tobacco in northern area of Florida. (p. 164).

CEREAL LEAF BEETLE larvae expected in early May in east-central Ohio. (p. 166).

#### Detection

● First establishment of an OSMIA BEE for United States in Maryland. (p. 166).

A CHRYSOMELID BEETLE is new for Florida, Georgia, and Maryland. (p. 167).

For new county records see page 167.

First winter survival of STRAWBERRY ROOT WEEVIL in Oregon. (p. 164).

#### Special Reports

Distribution of European Corn Borer (map). (p. 170).

Reports in this issue are for the week ending April 21 unless otherwise indicated.

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## CORN, SORGHUM, SUGARCANE

### INSECTS

EUROPEAN CORN BORER (Ostrinia nubilalis) - DELAWARE - Sussex County--pupation of overwintered larvae averaged about 12% in central area. (Burbutis).

SOUTHWESTERN CORN BORER (Diatraea grandiosella) - KANSAS - Grant County--overwintered larval survival high in undisturbed corn stubble in field, no live larvae in second field that had been grazed. Stanton County--some larval survival in field of corn stubble burned off and drilled to wheat with no tillage. (Mock).

### SMALL GRAINS

#### DISEASES

WHEAT POWDERY MILDEW (Erysiphe graminis f.sp. tritici) - OKLAHOMA - Garfield and Grant Counties--prevalence 50%/severity 10-60% on wheat week of April 14. (Pratt et al.).

SPECKLED LEAF BLOTCH (Septoria tritici) - OKLAHOMA - Garfield, Grant, Kay, Noble, Payne, and Blaine Counties--prevalence 100% on wheat week of April 14. (Hameed et al.).

LEPTOSPHAERULINA LEAF SPOT (Leptosphaerulina briosiana) - OKLAHOMA - Garvin County--severe on alfalfa week of April 14. (Williams et al.).

WHEAT STREAK MOSAIC VIRUS - KANSAS - Prevalence/severity by county: Stevens--20-30%/light, Comanche--50%/severe, Kiowa--5-100%/severe, Edwards, Ford, and Gray--30-50%/moderate, and Finney--10%/light. Most obvious where volunteer wheat present. (Sim).

SOIL-BORNE WHEAT MOSAIC 'TOBAMOVIRUS' - KANSAS - Eastern two-thirds of State--still obvious in wheat in many areas. Cool temperatures allowed symptoms to linger. Percent of surveyed area infected by county: Kiowa--30-50, Neosho--100, Cherokee--trace, Dickinson--40, Saline--5, Marshall--1, and Pottawatomie--trace to 5. Sumner, Sedgwick, and Cloud Counties--present. (Sim).

### INSECTS

DRYLAND WIREWORM (Ctenicera glauca) - WASHINGTON - Klickitat County--infestations heavy on winter wheat, up to 80% loss on about 500 acres near Bickleton on April 12. Other fields in same area plowed due to severe damage. (Pike).

GREENBUG (Schizaphis graminum) - OKLAHOMA - Counts per 0.3 row m (row ft) by county week of April 14: Washita and Caddo--averaged 1,000 in younger wheat with heavy damage, ranged 200-500 in older fields; Stephens--heavy populations damaged older fields (many fields treated in Washita, Caddo, and Stephens Counties); Major--ranged 0-15 (averaged 1.5) in 2 wheat fields. Okmulgee County--averaged 5 in oat field. Currently: Noble--4-55 in wheat, Grant--4-10, Major--light. (Arnold). ARKANSAS - Arkansas, Monroe, Phillips, St. Francis, Cross, Prairie, Woodruff, and Lonoke Counties--trace on small grains. (Mayse). KANSAS - Comanche, Kiowa, Sedgwick, Neosho, Cherokee, and Marshall Counties--averaged 2-10 per 0.3 row m of wheat. (Salsbury et al.).

## **TURF, PASTURES, RANGELAND**

### **INSECTS**

A DIASPIDID SCALE (Circulospis fistulella) - FLORIDA - New county record. Martin County--adults moderately infested leaves of Spartina patens (salt-meadow cordgrass) near Jensen Beach. Collected by E.W. Campbell, March 7, 1978. Determined by A.B. Hamon. (Mead).

## **FORAGE LEGUMES**

### **DISEASES**

SPRING BLACK STEM (Phoma medicaginis) - KANSAS - Eastern area--one of the most widespread alfalfa diseases. Prevalence/severity by county: Doniphan--70%/light, Jefferson--80%/moderate, Pottawatomie--50-100%/moderate, Marshall--trace, Shawnee--100%/heavy (defoliation noted), Douglas--80%/moderate, Lyon--100%/light (defoliation noted), Miami--100%/moderate (defoliation noted), Geary--100%/light, Allen--100%/light (defoliation noted), Montgomery--100%/light, Elk--100%/light, Cherokee--100%/moderate (defoliation noted), Bourbon--100%/light, and Dickinson--100%/light. Alfalfa 20-38 cm (8-15 in) tall. (Sim).

LEPTOSPHERULINA LEAF SPOT (Leptosphaerulina briosiana) - KANSAS - Eastern area--one of the most widespread alfalfa diseases. Prevalence/severity by county: Doniphan--100%/light, Jefferson--100%/moderate, Pottawatomie--100%/moderate, Douglas--80%/moderate, Lyon--100%/light (defoliation noted), Coffey--100%/light (defoliation noted), Miami--100%/light (defoliation noted), Allen--100%/moderate (defoliation noted), Montgomery--100%/light, Elk--50%/light, Cherokee--100%/moderate, Bourbon--100%/light, and Dickinson--30%/light. (Sim).

ALFALFA DOWNY MILDEW (Peronospora trifoliorum) - KANSAS - Sumner County--prevalence 70% on alfalfa plants in 1 field. Edwards County--trace. (Sim).

### **INSECTS**

ALFALFA WEEVIL (Hypera postica) - COLORADO - Mesa County--larvae averaged 20 per 100 sweeps in alfalfa field near Grand Junction April 12-18. (Bulla). OKLAHOMA - Terminal infestations in alfalfa by county week of April 14: Washita and Caddo--35-90%, Stephens--moderate to heavy, Garvin--15-40%, Wagoner and Muskogee--0-50%, Marshall--averaged 40% in 1 field (many fields treated in southern half of State), Payne--larvae 50-200 per 0.09 sq m (sq ft) in 1 field. Current larvae per 0.09 sq m unless stated otherwise: Stephens--50-80; Carter--averaged 100 in 1 field; Bryan--moderate; Garvin--light to moderate; Grady--averaged 40; Pawnee--averaged 200 per 10 sweeps in 1 field; Grant--averaged 1; Garfield--2-3; Noble--moderate; Wagoner and Muskogee--moderate to heavy, up to 60% terminal infestation; Alfalfa--2-3; Beaver--11-14 per 10 sweeps; and Texas--averaged 6 per 10 sweeps. (Arnold). ARKANSAS - Washington County--larvae continued moderate, about 20 per 0.09 sq m in alfalfa field April 8-14. Damage less than damage 7 days ago, most new leaves free of feeding. (Dumas). KANSAS - Status by county: Montgomery--larvae averaged 2.6 per stem on 30-cm (12-in) alfalfa. Prepupae (no pupae) noted. (White); Edwards--generally relatively light, larvae up to 1.1 per stem on 36-cm (14-in) alfalfa near Belpre (Salsbury); Finney--larvae up to 0.7 per stem in 20-cm (8-in) alfalfa; Riley, Wabaunsee, and Pottawatomie--larvae still generally scarce on alfalfa (Brooks, Bell); Riley--4th instar larvae (no prepupae) noted (Bell).



TENNESSEE - Middle area--alfalfa weevil infested 17 of 24 fields at or above control levels. Larvae averaged 1 per tip (50-tip sample) per field. Controls effective where applied. (Gregory). Western area--above control levels in all fields surveyed. (Locke). KENTUCKY - Percent tip infestation (and larvae per infested tip) by county: Barren--100 (10.1), Fayette--80 (3.2), Green--100 (6.1), and Hardin--100 (7.0). Alfalfa 20-30 cm (8-12 in) tall. (Sloderbeck). INDIANA - South-central district--mainly 1st and 2nd instar larvae, mean up to 2.1 per infested stem, infestation averaged 42% in 24 alfalfa fields. Alfalfa 22 cm (8.5 in) tall. (Meyer). OHIO - Adult activity normal. Larvae averaged 0.19 per sweep of alfalfa, development about 14 days behind 1977 levels. Same time in 1977, full grown larvae noted and larvae averaged 2.2 per sweep. (Drees). Populations early in 1977. (Flessel).

VIRGINIA - Forage acres sampled for alfalfa weevil, tips infested per 50 tips, % infestation, and % defoliation by county: Bedford--4, 41, 82%, and 20%; Culpeper--5, 11, 22%, and 1%; Franklin--35, -, -, and 15%; and Montgomery--5, 16, 32%, and 1%. (Barnes et al.). Infested 59% of tips; average estimated defoliation 9.50%. Larvae in most fields still too small, averaged 0.30 cm (0.12 in) long, to cause serious damage. One of fields (1.7%) and 6% of acreage exceeded economic threshold of infestation (foliar loss 20% or more). (Allen). WEST VIRGINIA - Adult status, larval tip infestation, larvae per tip, and alfalfa height by county: Ohio--3 adults per 25 sweeps, 18%, 1, 13 cm (5 in); Brooke--adult feeding on 60% of tips, 4%, not stated, 11 cm (4.5 in); Hancock--not stated, averaged 24%, 2, 13 cm. (Hacker). MARYLAND - Caroline County--1st and 2nd instars on 0.3-m (1-ft) tall alfalfa with 30% tip damage in 1 section of field. Development 7-14 days behind 1977. (Hellman, Pinto).

ARMY CUTWORM (Euxoa auxiliaris) - COLORADO - Garfield County--up to 10 per 0.09 sq m (sq ft) on alfalfa April 12-18. Severely damaged new growth. (Cogburn).

GREEN CLOVERWORM (Plathypena scabra) - MISSISSIPPI - Larvae per 25 sweeps by county: Newton and Neshoba--2nd to 4th instars 3-10 on red and crimson clover; Union and Pontotoc--larvae 0-8 on clover. (Anderson).

BEET ARMYWORM (Spodoptera exigua) - CALIFORNIA - Fresno County--First of 2nd instar larvae on alfalfa at Sanger. (Dunnegan).

PEA APHID (Acyrtosiphon pisum) - OKLAHOMA - Counts per 10 sweeps week of April 14 by county: Muskogee and Wagoner--up to 200 in scattered alfalfa fields; Washita and Caddo--heavy; and Garvin and Payne--light. Current counts: South-western, west-central, and south-central--500-1,000 in many alfalfa fields; north-central, northeastern, and central--generally light, many fields treated; and east-central--increased. Beaver and Texas--35-70. (Arnold). MISSISSIPPI - Newton, Neshoba, and Winston Counties--200-1,000+ per 25 sweeps on red and crimson clover. (Anderson). WEST VIRGINIA - Ohio County--11 per 25 sweeps in alfalfa 13 cm (5 in) tall. (Hacker).

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - UTAH - Washington County--controls needed for this species, PEA APHID (A. pisum), and ALFALFA WEEVIL (Hypera postica) in some alfalfa fields. (Davis, Knowlton). OKLAHOMA - New county records for blue alfalfa aphid on alfalfa by county: Pawnee--light at Pawnee on April 18, 1978; Osage--light near Skiatook on April 18; Payne--11 km (7 miles) east of Stillwater on April 19; Rogers--11 km west of Claremore on April 18; Mayes--at Chouteau on April 19; Tulsa--near Jenks on April 19; Lincoln--at Warwick on April 20; Oklahoma--at Arcadia on April 20; and Creek--some specimens swept from clover and vetch at Depew on April 20. All collected and determined by D.C. Arnold. (Arnold).



SPOTTED ALFALFA APHID (Therioaphis maculata) - OKLAHOMA - Counts per 10 sweeps by county: Stephens--averaged 135 in 1 alfalfa field; Jackson--25 in 2 fields; south-central, southwestern, and west-central areas--negative in 37 other fields (9 counties). (Arnold).

TARNISHED PLANT BUG (Lygus lineolaris) - MISSISSIPPI - Newton, Winston, Neshoba, and Oktibbeha Counties--increased; adults and nymphs 2-14 per 25 sweeps on red and crimson clover. (Anderson).

## **TOBACCO**

### INSECTS

TOBACCO BUDWORM (Heliothis virescens) - FLORIDA - Larvae widespread on young tobacco throughout growing region. (Whitty). Suwannee County--larval population two-thirds to two times heavier than at same time in 1977 in untreated check plots of tobacco at Live Oak. Based on current information, H. virescens more of a threat this year. (Tappan).

VEGETABLE WEEVIL (Listroderes costirostris obliquus) - FLORIDA - Gadsden County--damaged about 15% of 0.8-ha (2-acre) planting of young fluecured-type tobacco plants south of Quincy, adults cut stems on 2% of plants April 14. (Tappan).

## **MISCELLANEOUS FIELD CROPS**

### INSECTS

STRAWBERRY ROOT WEEVIL (Otiorhynchus ovatus) - OREGON - Crook County--overwintered adults around mint plants and under rocks along field margins of peppermint planting near Prineville, April 13. Believed first authenticated instance of this species surviving winter in State. Soil sampling revealed only larval stage. New generation adults not expected until May 20 or after. (Berry, Peters).

## **POTATOES, TOMATOES, PEPPERS**

### INSECTS

COLORADO POTATO BEETLE (Leptinotarsa decemlineata) - OREGON - Umatilla County--adults active in Hermiston area April 10-15. (Goeden).

## **COLE CROPS**

### INSECTS

IMPORTED CABBAGEWORM (Pieris rapae) - OKLAHOMA - First of season. Payne County--adults active and laying eggs on garden cole crops. (Arnold).

## **DECIDUOUS FRUITS AND NUTS**

### INSECTS

EASTERN TENT CATERPILLAR (Malacosoma americanum) - OKLAHOMA - Statewide--moderate to heavy on wild plum week of April 14. Tulsa, Payne, and Stephens Counties--damaged fruit trees. (Arnold). TENNESSEE - Statewide--continued to defoliate wild cherry trees. Larvae leaving tents to pupate in ground. (Locke, VanLandingham). KENTUCKY - Jessamine County--tents ranged 1-14 (averaged 4.3) per tree on 16 wild cherry trees 2.1-6.1 m (7-20 ft) tall. Some trees less

than 2.1 m not infested. Hardin County--tents 0-11 (averaged 3.7) on 13 trees 1.5-4.6 m (5-15 ft) tall. Eastern tent caterpillar defoliation became very noticeable, larvae 1.9-3.8 cm (0.75-1.5 in) long. (Sloderbeck). NEW HAMPSHIRE - Southeastern area--hatch began April 17, but relatively few larvae in field yet. Foliar development slow due to prolonged cool spring and not suited for feeding for at least 7-10 days. (Burger).

PLUM CURCULIO (Conotrachelus nenuphar) - OKLAHOMA - Major County--damage moderate to heavy on plums, apricots, and wild plums. (Arnold).

PLUM GOUGER (Coccotorus scutellaris) - KANSAS - First of season. Pratt County--adults active on wild plum April 20. (Salsbury).

SAN JOSE SCALE (Quadraspidiotus perniciosus) - CALIFORNIA - Fresno County--first gravid females in commercial almond and plum orchards in Fowler area. Population variable. (Dunnegan).

## **SMALL FRUITS**

### INSECTS

STRAWBERRY ROOTWORM (Paria fragariae) - OHIO - Morrow County--adult leaf feeding damage moderate to severe on second-year strawberry plants. Damage most noticeable on leaves under mulch; controls applied. (Lyon).

STRAWBERRY WEEVIL (Anthonomus signatus) - MARYLAND - Wicomico County--first activity of year on strawberries. (Hellman, Pinto).

## **ORNAMENTALS**

### INSECTS

CARMINE SPIDER MITE (Tetranychus cinnabarinus) - FLORIDA - Orange County--adults and egg masses on leaves of 66% of 7,000 dumbcane plants in nursery at Avalon. (Ware). Quarantine issued. (Mead).

## **FOREST AND SHADE TREES**

### INSECTS

SPRUCE NEEDLEMINER (Taniva albolineana) - NEBRASKA - Phelps and Fillmore Counties--moderate to heavy on spruce trees. (Peters et al.). Hall County--overwintered larvae began pupation. (Jones).

PALES WEEVIL (Hylobius pales) - MARYLAND - Worcester County--adults active and damaged seedlings in 3 ha (8 acres) of loblolly pine. (Hellman, Pinto).

SPRING CANKERWORM (Paleacrita vernata) - KANSAS - Finney County--hatch underway on elms at Garden City. (Shuman). Pratt County--moderate on wild plum in 1 situation. (Salsbury). Infested elm and hackberry at Humboldt, Allen County, and at Oswego, Labette County. (White).

ELM CALLIGRAPH (Calligrapha scalaris) - OKLAHOMA - First of season. Payne and Noble Counties--adults active on American elms week of April 14. (Arnold).

A DIASPIDID SCALE (Fiorinia fioriniae) - FLORIDA - New county records for this species and TERRAPIN SCALE (Lecanium nigrofasciatum). De Soto County--adults moderately infested leaves, stems, and bark of Persea borbonia (red bay) tree, near Nocatee, April 4, 1978. Collected by L.J. Chambliss. Determined by A.B. Hamon. Also new host record in State for L. nigrofasciatum. (Mead).

GIANT BARK APHID (Longistigma caryae) - OKLAHOMA - First of season. Muskogee County--light on pin oak at Muskogee week of April 14. (Arnold).

## MAN AND ANIMALS

### INSECTS

STABLE FLY (Stomoxys calcitrans) - FLORIDA - Southern area--generally heavy and economic on dairy cows; very heavy in spots: Okeechobee County--decreased from 320 per cow on March 20 to 60 flies per cow April 3 in dairy herd 16 km (10 miles) east of Okeechobee, (economic threshold about 10 flies per cow); flies breeding in soggy hay in pastures. (Koehler).

HORN FLY (Haematobia irritans) - OKLAHOMA - Counts per head by county week of April 14: Major--averaged 100 on cows and 200 on bulls; ranged: Washita and Osage--200-300, Noble--100-300, Payne--100-150, and Pontotoc--60-120. (Arnold). Current ranges per head: Noble, Payne, Grant, Garfield, Osage, Logan, Rogers, Mayes, Tulsa, Cherokee, Muskogee, and Creek--40-200 on most cattle herds and Latimer County--20-80. (Arnold).

MOSQUITOES - NEW HAMPSHIRE - Early spring species, principally Aedes stimulans, A. intrudens, and A. communis hatching in woodland pools. A. stimulans that hatched in late March now in late 2nd and early 3rd instars. Most woodland pools open except for those in heavily shaded locations. (Burger).

## BENEFICIAL ORGANISMS & THEIR ENEMIES

### INSECTS

AN OSMIA BEE (Osmia cornifrons (Radoszkowski)) - New United States record. MARYLAND - Prince Georges County--first establishment of this Japanese megachilid bee at Beltsville. Managed for apple pollination in Japan since 1940's. Introduced and released in April 1977. Reproduced and overwintered successfully. Observed by S.W.T. Batra, April 1, 1978. (Batra).

## FEDERAL AND STATE PROGRAMS

### INSECTS

CEREAL LEAF BEETLE (Oulema melanopus) - OHIO - Tuscarawas County--adults 0.09 per sweep of winter wheat 13-cm (5-in) tall in stage 4 (leaf sheaths lengthened). One eggmass noted. Egg laying expected to increase rapidly with warmer weather, larvae expected by first or second week of May. (Drees).

A GRASS BUG (Labops hesperius) - NEBRASKA - Scotts Bluff and Dawes Counties--eggs hatched and nymphs active in crested wheatgrass pastures. (Hagen). UTAH - Sevier County--hatch underway on planted grass rangeland in Salina Canyon, April 14. (Haws).

GRASSHOPPERS - OREGON - Wallowa County--occasional nymphs of Melanoplus sp. indicated hatch begun. (Goeden).

MORMON CRICKET (Anabrus simplex) - OREGON - Wallowa County--noneconomic populations of 2nd (mostly) and 3rd instar nymphs in lower Imnaha River Canyon. (Goeden).

---

## HAWAII PEST REPORT

General Vegetables - LEAFMINER FLIES (Liriomyza spp.) heavy (50-75% of foliage destroyed) on 0.2 ha (0.5 acre) of cucumber at Honohina, Hawaii Island, in spite of weekly treatments. (Matayoshi et al.).

## DETECTION

### NEW UNITED STATES RECORD

#### INSECTS

AN OSMIA BEE (Osmia cornifrons (Radoszkowski)) - MARYLAND - Prince Georges County. (p. 166).

### NEW STATE RECORDS

#### INSECTS

A CHRYSOMELID BEETLE (Pseudolampsis guttata) - FLORIDA - County unknown--1 adult in Oleno State Park, July 23, 1971. GEORGIA - Ware County--1 in Okefenokee State Park, July 25, 1971. MARYLAND - Somerset County--3 near Marion, June 5, 1971. All collected in blacklight trap and determined by E.J. Ford. All confirmed by R.E. White. Hosts unknown. (Ford).

### NEW COUNTY RECORDS

#### INSECTS

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - OKLAHOMA - Pawnee, Osage, Payne, Rogers, Mayes, Tulsa, Lincoln, Oklahoma, and Creek. (p. 163).

A DIASPIDID SCALE (Circulaspis fistulella) - FLORIDA - Martin. (p. 162).

A DIASPIDID SCALE (Fiorinia fioriniae) - FLORIDA - De Soto. (p. 166).

TERRAPIN SCALE (Lecanium nigrofasciatum) - FLORIDA - De Soto. (p. 166).

## LIGHT TRAP COLLECTIONS

CALIFORNIA - Bellota, 4/4, 11, 12-25°C (53-77°F) BL - ARMYWORM (*Pseudaletia unipuncta*) 21, BEET ARMYWORM (*Spodoptera exigua*) 3, BLACK CUTWORM (*Agrotis ipsilon*) 4, CABBAGE LOOPER (*Trichoplusia ni*) 1, SALT MARSH CATERPILLAR (*Estigmene acrea*) 1, VARIEGATED CUTWORM (*Peridroma saucia*) 6; La Grange, 4/10-15, BL - Armyworm 62, black cutworm 9, variegated cutworm 4. FLORIDA - Gainesville, 4/13-19, BL - Black cutworm 1, GRANULATE CUTWORM (*Feltia subterranea*) 11. KANSAS - HaviLand, 4/14-20, BL - ARMY CUTWORM (*Euxoa auxiliaris*) 5, armyworm 25, black cutworm 15, variegated cutworm 12, WHEAT HEAD ARMYWORM (*Faronta diffusa*) 1, YELLOWSTRIPED ARMYWORM (*Spodoptera ornithogalli*) 1; Pratt, 4/13-19, BL - Army cutworm 1, armyworm 40, black cutworm 40, variegated cutworm 47. KENTUCKY - Elkton, 4/13-18, 2BL - Armyworm 12; Trenton, 4/13-18, BL - Armyworm 12, black cutworm 1. MISSISSIPPI - Newton, 4/11-17, BL - Armyworm 4, saltmarsh caterpillar 2; Stoneville, 4/14-20, 6.1-28°C (43-83°F), precip. 0.2 cm (0.07 in), 2BL - Armyworm 35, black cutworm 37, CORN EARWORM (*Heliothis zea*) 2, saltmarsh caterpillar 21, variegated cutworm 2. TEXAS - College Station, 4/12-18, BL - Armyworm 4, black cutworm 5, corn earworm 2. WEST VIRGINIA - Putnam County, 4/15-16, BL - Armyworm 3, black cutworm 1, yellowstriped armyworm 1.

## CORRECTIONS

CPPR 3(13):128 - Top of page "FLORIDA - Alachua County - ... " should read "SPOTTED ALFALFA APHID (*Therioaphis maculata*) - FLORIDA - Alachua County ... "

CPPR 3(16):156 - CITRUS BLACKFLY (*Aleurocanthus woglumi*) - Determined by J. O'Neal not by S. Poling. (Mead).

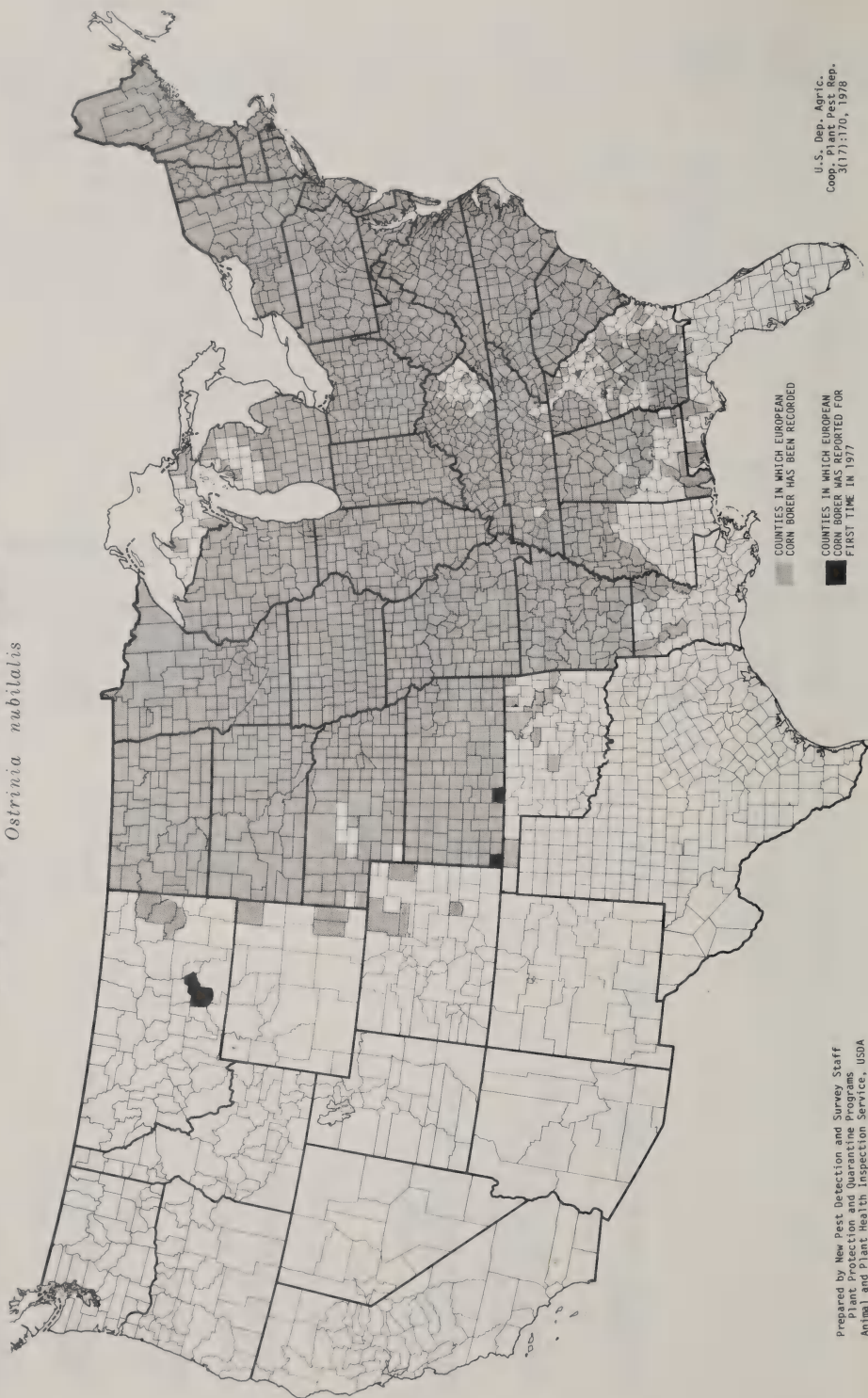
# Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff  
Plant Protection and Quarantine Programs, USDA

	<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Destination</u>
<u>Ancognatha scarabaeioides</u> Burmeister a scarab Det. R. Higgins	adult	with carnations from cargo	Colombia	Miami	FL
<u>Ceratitis capitata</u> (Wiedemann) Mediterranean fruit fly Det. R.H. Foote	larval	in coffee berries from baggage	Brazil	Los Angeles	CA
<u>Ceroplastes rusci</u> (Linnaeus) fig wax scale Det. S. Nakahara	adult	on Ficus cuttings from baggage	Italy	Boston	IL
<u>Hylobius</u> sp. a weevil Det. E.S. Ford	larval	in crates of iron castings	France	Baltimore	OH
<u>Liogenes quadridens</u> (Fabricius) a scarab Det. R. Higgins	adult	in aircraft holds	Panama	Miami	FL
<u>Metamasius</u> sp. a weevil Det. R. Higgins	larval	in bulbs of Oncidium plants from cargo	Ecuador	Miami	GA
<u>Omphisa anastomosalis</u> (Guenée) sweetpotato vine borer Det. D.M. Weisman	larval pupal	in sweetpotatoes from baggage	Hawaii	Honolulu	CA
<u>Monacha syriaca</u> Ehrenberg a hellicid snail Det. D.M. Odermatt	adult	on Limonium cut flowers from cargo	Israel	Kennedy Airport	USA



# **Distribution of European Corn Borer** *Ostrinia nubilalis*



Prepared by New Pest Detection and Survey Staff  
Plant Protection and Quarantine Programs  
Animal and Plant Health Inspection Service, USDA  
April 21, 1978



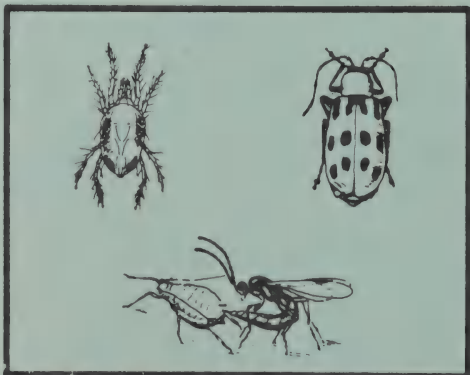
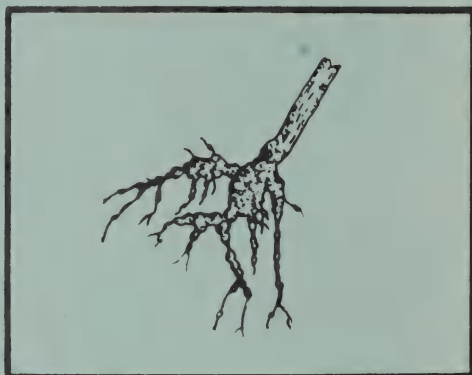




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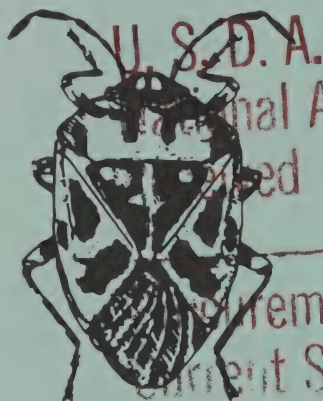
May 5, 1978

# Cooperative PLANT PEST REPORT

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This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

*Cooperative Plant Pest Report* supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

*Correspondence should be directed to:*

*CPPR*

New Pest Detection and Survey Staff  
Plant Protection and Quarantine Programs  
Animal and Plant Health Inspection Service  
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## COOPERATIVE PLANT PEST REPORT

### HIGHLIGHTS

#### Current Conditions

FALL ARMYWORM and BEET ARMYWORM infested buds of sweet corn in northern area of Florida. (p. 173).

GREENBUG damage to sorghum in southern tip of Texas. (p. 173).

#### Detection

● ALOE RUST in California is new to the Western Hemisphere. (p. 178).

● A new BOSTRICHID BEETLE for North America in Florida. (p. 177).

New State record for a WEEVIL in Illinois. (p. 178).

For new county and island records see page 179.

Reports in this issue are for the week ending April 28 unless otherwise indicated.

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## **CORN, SORGHUM, SUGARCANE**

### INSECTS

FALL ARMYWORM (Spodoptera frugiperda) - FLORIDA - Palm Beach County--light to moderate on experimental sweet corn 30-46 cm (12-18 in) tall in untreated plots at Belle Glade, April 18. Alachua County--this species and BEET ARMYWORM (S. exigua) infested buds of sweet corn at Alachua, populations relatively light but farmer treated 122 of 300 scouted ha (300 of 740 scouted acres). (Baker).

CORN EARWORM (Heliothis zea) - FLORIDA - Alachua County--started to appear; corn tasseling expected soon. (Baker)

SOUTHWESTERN CORN BORER (Diatraea grandiosella) - MISSISSIPPI - Amite County--1 larva, 3rd instar, on seedling corn surveyed in 4.9-ha (12-acre) field. (Jarratt).

A WEEVIL (Sphenophorus callosus) - NORTH CAROLINA - Coastal Plains--damage to corn continued in southern area week of April 21. Brunswick, Columbus, and Robeson Counties--0.2-ha (0.5-acre) spots replanted. (Hunt).

GREENBUG (Schizaphis graminum) - TEXAS - Counts on sorghum by county April 18-21: Hidalgo--3-400 per plant, damage economic to lower leaves, in some fields; Willacy--damage economic to pre-boot plants; De Witt--damaged 15-20 cm (6-8 in) plants, parasitism 20%; Ellis and Navarro--75 per plant in 80% of few fields, Collin and Hunt--maximum of 55 per 3 to 5-cm (1 to 2-in) plant, range of 18-20 per plant common. (Cocke et al.).

### **SMALL GRAINS**

### DISEASES

EYESPOT (Pyrenophora trichostoma) - KANSAS - Prevalence/severity on wheat 15-25 cm (6-10 in) tall by county: Lyon--10%/light, Coffey--trace, Montgomery--100%/light to moderate, Labette--100%/light, Cherokee--40%/light, Crawford and Linn--trace. (Sim).

WHEAT STREAK MOSAIC VIRUS - KANSAS - More apparent. Prevalence/severity on wheat 20-38 cm (8-15 in) tall by county: Hodgeman--10%/severe; Ford--trace to 90%/moderate, Clark--20-70%/moderate, Finney--2%/light, and Pawnee--100%/severe. (Sim).

### INSECTS

ARMY CUTWORM (Euxoa auxiliaris) - MONTANA - Wibaux and Dawson Counties--larvae ranged 0.5-1.5 per 0.3 row m (row ft) of winter wheat week of April 21. None reported in neighboring counties. Much winter-killed wheat. (Jensen).

GREAT BASIN WIREWORM (Ctenicera pruinina) - WASHINGTON - Adams County--stand reduction 30% (ranged 19.1-65.8%) by April 15 in experimental plots of winter wheat planted with untreated seed at Lind. (Harwood, Perkins).

WHEAT STEM MAGGOT (Meromyza americana) - KANSAS - Chautauqua County--adults averaged 4 per 10 sweeps in 46-cm (18-in) barley. Reno County--adults trace in 2 wheat fields 18-23 cm (7-9 in) tall. (Salsbury).

GREENBUG (Schizaphis graminum) - TEXAS - Counts on small grains per 0.3 row m (row ft) by county April 17: Archer, Baylor, Fisher, Foard, Hardeman, Wichita, and Young--0-16. (Boring). KANSAS - Eastern half of State--populations significant in scattered small grain fields. Chautauqua County--heaviest counts averaged



250 per 0.3 row m on 46-cm (18-in) barley. Cowley County--heaviest counts for greenbugs averaged 125 per 0.3 row m on 43-cm (17-in) barley. Averages per 0.3 row m of wheat by county: Sedgwick--4-20, McPherson--0-10, Reno--6-13, Kingman--8-13, Harper--15-68, Comanche--10, Pawnee--1, Harvey--1-2, Marion--1, Saline--5-17, Ottawa--3-5, Lincoln--4-10, Mitchell--3-7, Cloud--4-10, Clay--16-57, Douglas--0-1, Osage and Morris--trace, Lyon--2, Montgomery--95, Labette--9, Cherokee--43, Crawford--9, Linn--3, Chautauqua--50, and Butler--1-8. (Bell).

AN APHID (Rhopalosiphum padi) - KANSAS - Eastern area--increased in small grains. Averages per 0.3 row m (row ft) by county: Chautauqua up to 100 on 46-cm (18-in) barley; on wheat: Sedgwick--3, McPherson, Kingman, Harvey, and Saline--0 to trace, Reno--0-1, Harper--3-12, Comanche--2, Lincoln--1, Jefferson, Shawnee and Osage--trace, Morris--1, Montgomery--18, Labette--3, Cherokee--47, Crawford--1, and Butler--0-10. (Bell).

ASTER LEAFHOPPER (Macrosteles fascifrons) - FLORIDA - Alachua County--1 in 100 sweeps of oats at Gainesville. (Mead).

WINTER GRAIN MITE (Penthaleus major) - KANSAS - Averages per 0.3 row m (row ft) of wheat by county: Kingman--up to 200, Ottawa--10-21, Sedgwick--14, McPherson--0-10, Reno and Harper--0 to trace, Harvey--0-1, Marion--1, Lincoln--2-10, Mitchell--0-2, Linn--2, Chautauqua--200, and Butler--0.5. (Bell).

## **TURF, PASTURES, RANGELAND**

### INSECTS

GREENBUG (Schizaphis graminum) - FLORIDA - Okeechobee County--badly damaged 81.0 ha (200 acres) of pangolagrass pasture near Indian Reservation at Lake Okeechobee by April 18, damage in drier portion of ranch. Parasitism by Lysiphlebus testaceipes (an aphidiid wasp) at least 70%; no treatment needed due to heavy parasitism. (Genung).

## **FORAGE LEGUMES**

### DISEASES

SPRING BLACK STEM (Phoma medicaginis) - KANSAS - Prevalence/severity on alfalfa 25-43 cm (10-17 in) tall by county: Lyon 100%/moderate; Coffey, Allen, Elk, Cherokee, Bourbon, and Miami--100%/light; Saline--90%/light; and Montgomery--95%/light. (Sim).

LEPTOSPHERULINA LEAF SPOT (Leptosphaerulina briosiana) - KANSAS - Prevalence/severity on alfalfa 25-43 cm (10-17 in) tall by county: Saline--40%/moderate, Lyon--60%/moderate, Montgomery--60%/moderate, Coffey--100%/light, Allen--60%/light, Elk--45%/light, Cherokee--75%/light, Bourbon--80%/light, and Miami--60%/light. (Sim).

### INSECTS

ALFALFA WEEVIL (Hypera postica) - NEW MEXICO - Dona Ana County--larvae averaged 1-3 per terminal on about 10% of terminals in 4 alfalfa fields near Las Cruces week of April 21. (Smith). Sandoval County--adults averaged 1-3 and larvae 33-50 per 25 sweeps of alfalfa fields at Corrales. (Heninger). TEXAS - New county record. Jeff Davis County--larvae collected on alfalfa 3 km (2 miles) northwest of Valentine, April 3, 1978. Collected by C.W. Neeb. Determined by H.R. Burke. (Jackman). Counts on alfalfa by county April 20: Pecos and Reeves--26 per 50 sweeps, Hudspeth--larvae 10-30 and adults 1-12 per 0.09 sq m (sq ft) in isolated fields at Dell City, and El Paso--larvae 5-20 per 0.09 sq m. (Foster, Neeb).

KANSAS - Alfalfa weevil outside southeast district and southern border counties-- damage to alfalfa still very light. (Bell). Southeastern area--larval populations unchanged, possibly due to cool weather. Some treatment applied and 1 field cut. (White). Larvae per sweep by county: McPherson--2, Pottawatomie--trace, Riley--18, Chautauqua--14-40 (pupae noted), Cowley--10-20, Marion, Sedgwick, and Wabaunsee--trace to 1, and Dickinson--3. (Brooks, Bell). Larval averages per stem (predominant larval instar)/% damaged stems on 20 to 46-cm (8 to 18-in) stems by county: Allen--1 (3rd instar)/60%, Elk--0.9 (3rd)/96%, Montgomery--2.1 (3rd)/100%, Cherokee--0.6 (1st)/56%, Lyon--trace (2nd)/20%, Haskell--0/trace %, Seward--0.2 (2nd)/0%, Gray--0.1 (1st, 2nd)/trace %, Finney--0.5 (2nd)/30%, Riley--0/trace %, Pottawatomie--0.1 (2nd)/8%, Wabaunsee--0/trace %, Pawnee--0.1 (2nd)/0%, Edwards--1.8 (3rd)/84%, Comanche--0.7 (2nd)/52%, Rush--0/4%, Barton--0.2 (1st)/40%, McPherson 0/0%, Reno--0.4 (1st)/24% and 0.7 (3rd)/48%, and Kingman--0.5 (1st, 2nd)/56%. (Salsbury et al.).

MISSOURI - Extreme southern areas--alfalfa weevil larval damage above recommended control levels in forage legumes week ending April 22, damaged plants ranged 90-100%. Central area--damage very light due to below normal temperatures, damaged plants averaged less than 10%. (Huggans).

ILLINOIS - Alfalfa weevil status week of April 21. South of State Highway 13--larvae averaged 1 per alfalfa stem, tip feeding averaged about 17% (ranged 6-35%), alfalfa averaged 38 cm (15 in) and ranged 28-48 cm (11-19 in) tall. Fields with south slopes and/or near wooded areas may need treatment in 7 days, alfalfa growth should outstrip damage potential in most cases. State Highway 13 north to Interstate Highway 70--larvae averaged 13 per 30 stems, tip feeding averaged 6% (ranged 0-40%), alfalfa averaged 28 cm (11 in) and ranged 20-36 cm (8-14 in) tall. North of Interstate Highway 70--feeding slight to nonexistent with only occasional fields showing potential for problems. Current development of infestations slowed due to cool weather. As far north as U.S. Highway 36--active in occasional alfalfa field; potentially economic infestations unknown in this area. Extreme southern area--treatment needed in occasional fields. (Black).

INDIANA - Alfalfa weevil in south-central area--21 untreated alfalfa fields averaged 27 cm (11 in) tall compared with 20 cm (7.9 in) last period. Infestation 56% (ranged 17-92%) compared with 40% last period. Mean larvae per infested stem 2.3, still mostly 1st or 2nd instar. Eggs per stem averaged 0.95 on 525 stems but egg laying punctures only on 9%; Harrison County--eggs 80 per 15 sq cm (2.3 sq in) April 17 in field checked regularly. (Meyer). WISCONSIN - Dane and Rock Counties--adults averaged about 1 per 100 sweeps in some alfalfa about 8 cm (3 in) tall. (Lovett).

FLORIDA - Alachua County--Alfalfa weevil adults 98 and larvae 50 in 100 sweeps of untreated forage legume field at Gainesville, damage heavy. (Mead).

TENNESSEE - Lake County--populations above control levels in almost all alfalfa fields. About 200 ha (600 acres) treated effectively. Treatment on remaining acreage expected by end of period. (Bradley). Middle area--10 of 22 fields at or above control levels, many fields treated. (Gregory). VIRGINIA - Forage ha (acres) sampled, tips infested per 50 tips, % infestation, % defoliation by county April 19-24: Bedford--1.6 ha (4 acres), 0, 0%, 15%; Botetourt--4 (9) and 6.1 (15) in 2 fields, 29 and 33, 58% and 6%, 5% and 2%; Culpeper--2 (5), 8, 16%, 1.5%; Montgomery--2 (5), 18, 36%, 5%; Northampton--7.3 (18), 50, 100%, 25%. (Robertson et al.). Infested 46% of tips; average estimated defoliation 8.92%. Larvae in most fields still too small, averaged 0.30 cm (0.12 in) long, to cause serious damage. One of the fields (17%) and 32% of acreage exceeded economic threshold of infestation (foliar loss 20% or over). (Allen).

ALFALFA LOOPER (*Autographa californica*) - WASHINGTON - Walla Walla County--adults 7-8 per night by April 21 in pheromone traps at Walla Walla, populations appear sizable. (Halfhill).

BLUE ALFALFA APHID (*Acyrtosiphon kondoi*) - KANSAS- New county records. Clay County--taken on alfalfa near Clay Center, April 26, 1978. Mitchell County--on alfalfa near Beloit, April 26. Both collected and determined by B.D. Hilbert. Chautauqua County--on alfalfa near Sedan, April 26. Collected and determined by K.O. Bell. (Bell). NEVADA - Counts on alfalfa acreage surveyed by county week ending April 21: Clark--averaged 250-300 per sweep on 48.6 ha (120 acres) in Sandy Valley area and averaged 75 per sweep on 32 ha (80 acres) in Moapa Valley (Martinelli, Zoller); Washoe--problems still occurred in Reno area, averaged 100-200 per stem on 81.0 ha (200 acres) of 13-15 cm (5-6 in) hay alfalfa; Douglas--ranged 200-300 per stem on 243 ha (600 acres) of alfalfa hay at Minden, no treatments due to bad weather (Bechtel).

PEA APHID (*Acyrtosiphon pisum*) - NEW MEXICO - Sandoval County--adults and nymphs averaged 5-7 per 25 sweeps of alfalfa at Corrales. (Heninger). TEXAS - Pecos and Reeves Counties--115 per 50 sweeps of alfalfa April 20. (Foster). WISCONSIN - First nymphs of season. Dane and La Crosse Counties--averaged 1-2 per 50 sweeps of 13-cm (5-in) alfalfa. Nymphs just hatched to half grown. (Lovett).

SPOTTED ALFALFA APHID (*Therioaphis maculata*) - TEXAS - Pecos and Reeves Counties--30 per 40 sweeps of alfalfa April 20. (Foster). NEVADA - Washoe County--isolated specimens fewer than 1 per stem on 60.8 ha (150 acres) of hay alfalfa at Reno week ending April 21. (Bechtel).

MEADOW SPITTLEBUG (*Philaenus spumarius*) - INDIANA - Status on forage by county: Harrison--23% of nymphs collected April 21 in 2nd instar, Shelby--1st instars collected April 20; Tippecanoe--1st instars collected April 24. (Chmiel).

## PEANUTS

### INSECTS

BEET ARMYWORM (*Spodoptera exigua*) - FLORIDA - Alachua County--larvae starting to appear, 1 per 2 row m (6 row ft) in 8.1 ha (20 acres) of 6-week-old Valencia and Spanish peanuts 11 km (7 miles) southwest of Gainesville, April 26. (Baker)

## COTTON

### INSECTS

BOLL WEEVIL (*Anthonomus grandis*) - TEXAS - Hidalgo, Calhoun, and San Patricio Counties--adults trapped April 21. (Cocke et al.). NORTH CAROLINA - Survival light as indicated by trash samples. Scotland County--overwintered adults 55 per 0.4 ha (acre), decreased 59% from 1977. Populations in 1977 did not limit cotton production. (Hunt).

BOLLWORMS (*Heliothis* spp.) - TEXAS - Counts on cotton by county April 20-21: Kleberg--BOLLWORM (*H. zea*) larvae 0-5 per 100 plants, and maximum of 150 adults and 20 TOBACCO BUDWORM (*H. virescens*) adults per trap per night, Pecos and Reeves--6 *H. zea* males to 5 females and 2 *H. virescens* males per trap per night. (Rothrock et al.).



## POTATOES, TOMATOES, PEPPERS

### INSECTS

VEGETABLE WEEVIL (Listroderes costirostris obliquus) - FLORIDA - Gadsden County--caused 10% loss of young tomatoes (cut stems of transplants) in 0.1 ha (0.3 acre) of garden tomatoes at Quincy. Economic in 0.61 ha (1.5 acres) of staked tomatoes at Quincy, April 21; adults moved from 2-ha (5-acre) field of onions into 6.1-ha (15-acre) field of staked tomatoes, damaged first 4 rows; some rows needed replanting; treatments less effective due to weevils under plastic mulch. (Tappan).

## BEANS AND PEAS

### INSECTS

CORN EARWORM (Heliothis zea) - FLORIDA - First larvae of season. Suwannee County--on 32 ha (80 acres) of snap beans near Live Oak. (Baker).

TOBACCO BUDWORM (Heliothis virescens) - FLORIDA - Alachua County--larvae 2 per 0.46 row m (1.5 row ft) on 23 ha (56 acres) of garbanzo beans at Alachua, treated April 20 and 27. (Baker).

## DECIDUOUS FRUITS AND NUTS

### INSECTS

EASTERN TENT CATERPILLAR (Malacosoma americanum) - FLORIDA - Northern area--generally heavy. Gadsden County--heaviest in 20 years at Quincy; tents common, averaged 3-5 per tree, March 28 to April 21 on wild cherry, Chickasaw plum, commercial peach, crabapple, and cherry-laurel; some trees 6.1 m (20 ft) tall with 4.6-m (15-ft) spread, completely defoliated; larvae searching for pupation sites became nuisance around yards and buildings April 24. (Tappan). Alachua County--adults peaked in blacklight trap at Gainesville, totaling between 250-300 adults per night per trap April 21-25; tents unusually heavy on Prunus spp. in Gainesville area during March and April. (Mead).

WOOLLY WHITEFLY (Aleurothrixus floccosus) - CALIFORNIA - New county record. Riverside County--3 pupae and several nymphs on grapefruit tree in dooryard at SunCity on April 24, 1978. Collected by F. Harris and R. Tolles. Determined by E. Reeves; confirmed by R.J. Gill. (Hasbrouck).

ROSY APPLE APHID (Dysaphis plantaginea) - PENNSYLVANIA - One of most serious fruit tree pests in 1977. York and Franklin Counties--hatch began week of April 20, eggs in 10-30% of buds in infested orchards. Treatment needed. (Tetrault).

APPLE APHID (Aphis pomi) - PENNSYLVANIA - Heavier on deciduous fruit trees than in past 2 years. Statewide--infested buds averaged up to 75% with 1-10 per bud. (Tetrault).

## OTHER TROP. & SUBTROP. FRUITS

### INSECTS

A BOSTRICHID BEETLE (Xylopsocus capucinus (Fabricius)) - FLORIDA - New North American record. Dade County--adults infested dry secondary branches near axillary buds of Manihot esculenta (cassava) at a research station at Homestead, March 14, 1978. Collected by J. Pena. Determined by E. Gerberg. (Denmark). Known from all tropical regions, including Hawaii and the continents of Africa, Asia, and South America. Some of the many hosts include mango, litchi, grape, rubber, guava, gardenia, and hibiscus. (Fisher).

## SMALL FRUITS

### INSECTS

A WEEVIL (Otiorhynchus rugosostriatus) - ILLINOIS - New State record. Lake County--3 specimens submitted from household at Lake Forest, by S. Rachesky March 27, 1978. Determined by J.K. Bouseman; confirmed by D.R. Whitehead. (Black).

## ORNAMENTALS

### DISEASES

ALOE RUST (Uromyces aloes (Cooke) Magnus) - CALIFORNIA - New Western Hemisphere record. San Diego County--infected Aloe plants found in nursery at San Diego in February 1978. Collected by K. Sims, March 2, 1978. Determined by P. Hiatt and K. Sims; confirmed by F. Pollack. Up to 6 leaves per plant with lesions 1-3.8 cm (0.5-1.5 in) across on 5% of 1,500 plants 25 cm (10 in) across. Plants grown from seed planted in nursery in 1976. Seeds probably imported from Africa. Infected plants removed and destroyed. (Hasbrouck). Known from Ethiopia, India, Kenya, Lesotho, Madagascar, Malawi, Rhodesia, Tanzania, Uganda, and in greenhouses in United Kingdom. Known only from 10 species of Aloe. (Sivanesan).

## FOREST AND SHADE TREES

### INSECTS

BLACK PINELEAF SCALE (Nuculaspis californica) - FLORIDA - New county record. Nassau County--adults scattered on needles of Pinus elliotii (slash pine) at park near Brycewill, March 13, 1978. Collected and determined by L. Woodford; confirmed by A.B. Hamon. (Mead)

SPRING CANKERWORM (Paleacrita vernata) - KANSAS - Comanche County--significantly damaged honeylocusts at Coldwater. (Salsbury). TENNESSEE - Central area--hatched out week ending April 21. Recent storms blew larvae off hackberry trees, normal host, to a variety of flowering trees around residences. Controls applied in many cases. Defoliation of infested trees expected. (Gordon, White).

ELM LEAF BEETLE (Pyrrhalta luteola) - KANSAS - First of season. Riley and Montgomery Counties--adults fed on elm foliage. (White, Bell).

## FEDERAL AND STATE PROGRAMS

### INSECTS

CEREAL LEAF BEETLE (Oulema melanopus) - NORTH CAROLINA - Surveys in wheat positive in 27 sites during April. Number of positive sites in most heavily infested counties by county: Person--6 of 7, Stokes--3 of 7, Orange--3 of 6, and Durham--2 of 3. (Hunt).

SCREWORM (Cochliomyia hominivorax) - Total of 20 cases reported from continental United States April 2-8 as follows: New Mexico 1, Arizona 18, California 1. (Meadows). Total of 180 cases confirmed in portion of Barrier Zone in Republic of Mexico. Total of 562 cases reported in Mexico south of Barrier Zone. (Williams, Smith). Number of sterile flies released this period totaled 45,157,200 as follows: Texas 25,418,200, Arizona 17,885,000, California 1,854,000. (Meadows). Total of 239,909,550 sterile flies released within Barrier of Mexico. (Williams, Smith).

## HAWAII PEST REPORT

General Vegetables - LEAFMINER FLIES (Liriomyza spp.) heavy on 45.8 m (150 ft) of tomatoes at Panaewa, Hawaii Island. GREENHOUSE WHITEFLY (Trialeurodes vaporariorum) severe on 0.10 ha (0.25 acre) of pole beans at Haaheo (Hilo), Hawaii Island. Adults conspicuous in planting and on surrounding vegetation and structures. (Hirayama et al.).

Miscellaneous - New island record for a NOCTUID MOTH (Prospalta dolorosa). Kauai Island--1 adult collected at large at Lihue by D. Sugawa, March 10, 1978. Determined by S. Higa. (L. Nakahara).

### DETECTION

NEW WESTERN HEMISPHERE RECORD

#### DISEASES

ALOE RUST (Uromyces aloes (Cooke) Magnus) - CALIFORNIA - San Diego County. (p. 178).

NEW NORTH AMERICAN RECORD

#### INSECTS

A BOSTRICHID BEETLE (Xylopsocus capucinus (Fabricius)) - FLORIDA - Dade County. (p. 177).

NEW STATE RECORD

#### INSECTS

A WEEVIL (Otiorhynchus rugosostriatus) - ILLINOIS - Lake County. (p. 178).

NEW COUNTY and ISLAND RECORDS

#### INSECTS

ALFALFA WEEVIL (Hypera postica) - TEXAS - Jeff Davis. (p. 174).

BLACK PINELEAF SCALE (Nuculaspis californica) - FLORIDA - Nassau. (p. 178).

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - KANSAS - Clay, Mitchell, and Chautauqua. (p. 176).

A NOCTUID MOTH (Prospalta dolorosa) - HAWAII - Kauai. (p. 179).

WOOLLY WHITEFLY (Aleurothrixus floccosus) - CALIFORNIA - Riverside. (p. 177).

LIGHT TRAP COLLECTIONS

[illegible]



# Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff  
Plant Protection and Quarantine Programs, USDA

	<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Destination</u>
<u>Aleutotuberculatus aucubae</u> (Kuwana) a whitefly Det. D.M. Odermatt	pupal	on leaves of <u>Pyracantha</u> plants from cargo	Japan	Kennedy Airport	CT
<u>Asterolecanium</u> sp. a pit scale Det. S. Nakahara	nymphal	on leaves of <u>Tillandsia</u> plants from cargo	Guatemala	Los Angeles	CA
<u>Catolethrus fallax</u> Bohemann a weevil Det. T.J. Spilman	adult	in stalks of dried, ornamental uvagrass from cargo	Nicaragua	New York	USA
<u>Cryptoblabes gnidiella</u> (Milliere) a pyralid moth Det. D. Walters	larval	in pomegranates from baggage	Italy	Kennedy Airport	USA
<u>Harmolita</u> sp. a jointworm Det. P. Marsh	adult	with dried flowers from cargo	Italy	Mobile	AL
<u>Hylurgus ligniperda</u> (Fabricius) a bark beetle Det. D.M. Anderson	adult larval	in wood crates containing marble	Italy	Boston	RI
<u>Mesolecanium</u> sp. a soft scale Det. S. Nakahara	adult nymphal	on leaves of <u>Tillandsia</u> plants	Brazil	Los Angeles	CA
<u>Cochlicella ventrosa</u> (Ferussac) a helioid snail Det. D.M. Odermatt	adult juvenile	on plants from baggage	Portugal	Kennedy Airport	USA





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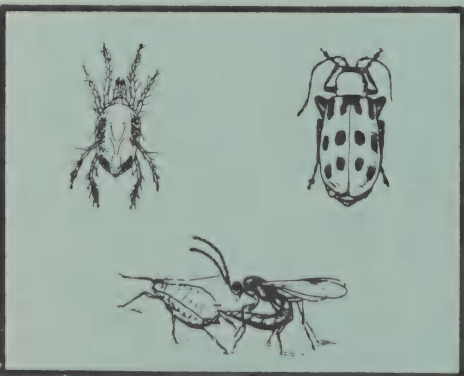
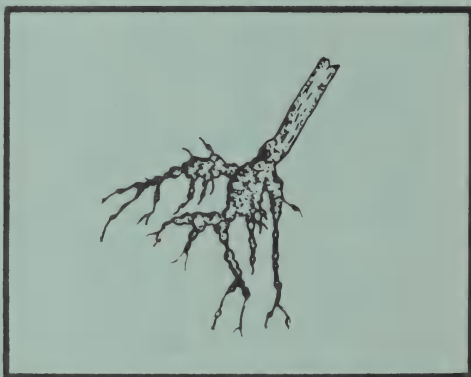
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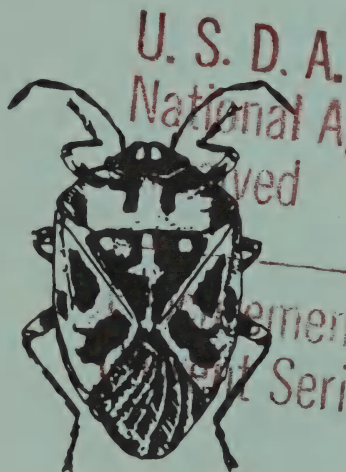
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# Cooperative PLANT PEST REPORT

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This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

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*Correspondence should be directed to:*

**CPPR**

New Pest Detection and Survey Staff  
Plant Protection and Quarantine Programs  
Animal and Plant Health Inspection Service  
U.S. Department of Agriculture  
Federal Building #1  
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## **COOPERATIVE PLANT PEST REPORT**

### **HIGHLIGHTS**

#### Current Conditions

First generation EUROPEAN CORN BORER problems expected in Maryland. (p. 185).

ALFALFA WEEVIL damaged all alfalfa terminals in west-central OKLAHOMA. Alfalfa cut instead of treated in parts of Kentucky. (p. 186-187).

BLUE ALFALFA APHID continued heavy on alfalfa in parts of Nevada and Utah. (p. 187-188).

BOLL WEEVIL survival very light in southern North Carolina. (p. 188).

BEET LEAFHOPPER noneconomic in southwestern Idaho. (p. 188).

#### Detection

For new county and island records see page 191.

~~Reports in this issue are for~~ the week ending May 5 unless otherwise indicated.



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## **CORN, SORGHUM, SUGARCANE**

### DISEASES

CORN STUNT SPIROPLASMA - See a LEAFHOPPER below.

### INSECTS

ARMYWORM (*Pseudaletia unipuncta*) - OHIO - Wayne County--first of season taken April 28 in blacklight traps, trapped 18 days earlier in 1977. (Rings, Clement). DELAWARE - Sussex County--first adults of season taken April 22-28 in blacklight trap. Averaged less than 4 per night. (Burbutis, Kelsey).

CORN EARWORM (*Heliothis zea*) - OKLAHOMA - Payne County--first adults (2) of season in light traps at Stillwater, April 28. (Arnold). KANSAS - Sedgwick County--first of season in blacklight trap near Mount Hope. (Kugler, Bell).

BLACK CUTWORM (*Agrotis ipsilon*) - OHIO - Wayne County--first male of season in blacklight trap April 24. (Levine, Schmidt).

EUROPEAN CORN BORER (*Ostrinia nubilalis*) - NORTH DAKOTA - Cass, Dickey, Ransom, Richland, and Sargent Counties--winter survival averaged 82% in untilled corn fields, averaged 76% in 1977. (Scholl). KENTUCKY - Woodford County--overwintered population appeared heavy, 13 larvae and 1 pupa in 15 cornstalks in unharvested field April 25. (Sloderbeck). MARYLAND - Pupation 30-40% week ending April 28, late brood expected due to cool spring. Above normal corn damage predicted. Statewide--current infestation about 21 days late, all blacklight trap catches negative; pupation less than 50%. First brood expected to cause problems in corn due to synchronized late emergence. (Hellman, Pinto). DELAWARE - Central Sussex County--larval pupation averaged 25%, April 22-28. (Burbutis, Kelsey).

MAIZE BILLBUG (*Sphenophorus maidis*) - NORTH CAROLINA - Coastal Plains--this species and a WEEVIL (*S. callosus*) damaged corn in western area. Some 6.1-ha (15-acre) fields replanted in southern and eastern areas. Johnston and Wilson Counties--damaged about 10% of 20 fields. Cold, wet weather increased damage potential. (Hunt).

A LEAFHOPPER (*Dalbulus maidis*) - FLORIDA - Dade County--localized population on varietal plantings of corn at Fairchild Tropical Garden, South Miami, April 14. This important vector of CORN STUNT SPIROPLASMA collected once on *Tripsacum* at this garden. Southern area--survey of corn for symptoms of corn stunt spiroplasma will be intensified. (Tsai, Mead).

SEEDCORN MAGGOT (*Hylemya platura*) - MARYLAND - Kent County--yield reduction 80% in 2 ha (6 acres) of field corn; grower used seed and preplant insecticide treatments. (Hellman, Pinto).

## **SMALL GRAINS**

### INSECTS

ARMYWORM (*Pseudaletia unipuncta*) - CALIFORNIA - First of season. Fresno County--larvae on barley in Tranquility area April 26. (Dunnegan).

PALE WESTERN CUTWORM (*Agrotis orthogonia*) - KANSAS - Hamilton County--larvae averaged up to 7.3 per 0.3 row m (row ft) in 18-cm (7-in) wheat. (Bell).

GREENBUG (*Schizaphis graminum*) - OKLAHOMA - McCurtain County--averaged 50 per 0.3 row m (row ft) in wheat April 19. Week ending April 28: Garfield and Major Counties--ranged 0-10 per 0.3 row m, decreased; southwestern and west-central counties--almost nil due to parasitism and predation. (Arnold). ARKANSAS - Craighead County--trace in wheat field week ending April 28. (Kimbrough). KANSAS - Wilson County--248 per 0.3 row m in 38-cm (15-in) wheat. (Bell). MISSOURI - Southwestern area--trace in 5 small grain fields. (Munson). NEBRASKA - Lancaster, Gage, and Johnson Counties--3-31 (averaged 14.6) per 100 sweeps in 8 wheat fields; alates in all 8 fields. (Miller).

CHINCH BUG (*Blissus leucopterus leucopterus*) - NEBRASKA - Lancaster, Gage, and Johnson Counties--adults 0-15 (averaged 4.4) per 100 sweeps in 8 wheat fields. (Miller).

## **TURF, PASTURES, RANGELAND**

### INSECTS

A GELECHIID MOTH (*Chionodes psiloptera*) - IDAHO - Kootenai County--large larvae 1-25 per 0.09 sq m (sq ft) of sod in grass seed fields near Setters week of April 27. First pupae of season April 21. (Homan, Wright).

MEADOW SPITTLEBUG (*Philaeus spumarius*) - PENNSYLVANIA - Perry County--first nymphs of season on cinquefoil in New Bloomfield Township, April 24. No damage. (Snyder).

## **FORAGE LEGUMES**

### DISEASES

ALFALFA DOWNY MILDEW (*Peronospora trifoliorum*) - OKLAHOMA - Coal County--prevalence 100%/severity 10% on wheat week ending April 28. (Hameed et al.).

### INSECTS

ALFALFA WEEVIL (*Hypera postica*) - OREGON - Umatilla and Morrow Counties--undetermined damage to irrigated alfalfa in Hermiston and Boardman areas, unusual for region. Various instars and some adults noted. Some growers considered controls. (Goeden). UTAH - Cache County--adults usually 1 per 10 sweeps, averaged 1 per sweep in 1 field at Hyde Park week of April 27. Some eggs laid April 16-20. Utah County--adults averaged 7.5 per 10 sweeps at Pleasant Grove, 2 per 10 sweeps in 1 field April 19. (Davis). NEW MEXICO - Otero County--larvae averaged 170 per 25 sweeps in alfalfa field at south edge of Tularosa week ending April 28. Damage to terminal growth minor. (Perry).

OKLAHOMA - Southwestern Counties--alfalfa weevil mostly pupated in alfalfa. West-central counties--terminal damage averaged 100% in untreated fields. Garfield County--larvae ranged 2-10 per 0.09 sq m (sq ft). Tulsa County--light to moderate week ending April 28. (Arnold). KANSAS - Alfalfa stems averaged 36-53 cm (14-21 in) tall. Percent damaged stems/larval averages per stem (pre-dominant larval instar) by county: Allen--88%/1.1 (1st, 3rd), Elk--96%, 2.1 (3rd, 4th), Montgomery--84%/0.8 (4th), Cherokee--60%/0.9 (3rd), and Lyon--28%/0.4 (2nd). (White et al.). MISSOURI - Week ending April 29: South-central and east-central areas--larvae from fewer than 1 to 6 per stem, damage on 100% of plants in untreated fields; and central area--larvae 0.5-4 per stem, damage on 8-54% of plants. (Munson).

TENNESSEE - Trousdale and Smith Counties--alfalfa weevil above control levels in 5 of 7 forage legume fields. (Gregory). KENTUCKY - Percent infested tips/larvae per infested tip per 50-stem sample by county (1 field each) April 25-27: Garrard--98%/4.9; Mercer--100%/6.0; Todd--80%/2.2; Woodford--100%/4.7; and Washington--40%/1.5, 16%/2.0, and 14%/1.0. Alfalfa 25-46 cm (10-18 in) tall. Larvae currently increased in untreated alfalfa fields. Adair, Mercer, Barren, and Metcalfe Counties--4-10 per infested tip in fields sampled. Estimated defoliation 10-50% in untreated fields, damage noted. All larval stages noted, larvae began spinning cocoons in some southern fields. Some alfalfa in southern area in early bud stage. Some growers cut early rather than treat. (Sloderbeck).

INDIANA - Alfalfa weevil on untreated alfalfa 18-35 cm (7-14 in) tall; number of untreated fields surveyed, mean % infested, mean larvae and mean number of eggs per stem by district: West-central--6, 5.3%, 0.9, and 0.07; central--4, 10%, 1.3, and 0.5; southwest--4, 60%, 2.6, and 0.6; south-central--17, 76%, 2.7, and 0.8; and southern--not stated, 68%, 2.6, and 0.8, treatments applied to 28% of 29 regularly checked fields. (Meyer). VIRGINIA - Bedford, Botetourt, Fauquier, and Montgomery Counties--alfalfa weevil infested 56% of tips and average estimated defoliation 9.83% based on 5 samples of 10 tips each in forage. Larvae too small in most fields to cause serious damage. One field (8%) and 2% of acreage above economic infestation threshold (20% or more foliage loss). (Allen).

WEST VIRGINIA - Counts on alfalfa 15-25 cm (6-10 in) tall by county April 24-26: Monongalia--larvae averaged 6% tip infestation (Weaver); Wood--larvae averaged 36% tip infestation and adults 3 per 25 sweeps; Jackson--larvae averaged 40% tip infestation, 2nd and 3rd instars present; adults 11 per 25 sweeps. Current counts: Jefferson--tip infestation 81%, most larvae 1st and 2nd instars, tip infestation 10% in 1 field treated about April 5; Berkeley--tip infestation 63%, mostly 1st and 2nd instars, little feeding damage. (Hacker).

GREEN CLOVERWORM (*Plathypena scabra*) - KENTUCKY - Todd County--first larvae of season on alfalfa May 2. (Leibee).

PEA APHID (*Acyrtosiphon pisum*) - IDAHO - Twin Falls County--larvae and adults in 32-ha (80-acre) alfalfa field near Hagerman, April 28, retarded plant growth. (Wilson, Stoltz). UTAH - Utah County--averaged 12 per 10 sweeps at Pleasant Grove on 15-cm (6-in) alfalfa April 19. (Davis). OKLAHOMA - Garfield County--ranged 0-20 per 0.09 sq m (sq ft) in alfalfa. Major County--heavy week ending April 28. (Arnold).

KANSAS - Pea aphid averages per 10 sweeps of 36 to 51-cm (14 to 20-in) alfalfa by county (1 field each): Lyon--38, Elk--280, Labette--74, Neosho--83, and Wilson--22. (White). NEBRASKA - Lancaster, Gage, and Johnson Counties--2-48, (averaged 20) per 100 sweeps in 7 alfalfa fields. (Miller). MISSOURI - South-central area--increased slightly with cool weather week ending April 29. Ranged 0-15 per 10 sweeps in alfalfa and red clover. Averaged 7.5 per 10 sweeps in 5 fields. (Munson).

BLUE ALFALFA APHID (*Acyrtosiphon kondoi*) - NEVADA - Averages per sweep by county week ending April 28: Clark--mainly this species along with PEA APHID (*A. pisum*) averaged 75 on hay alfalfa in Moapa Valley; Nye--mostly blue alfalfa aphid averaged 150 in Pahrump Valley (Martinelli, Zoller); and Churchill--mainly *A. pisum* averaged 30 per sweep on seed alfalfa in Dixie Valley (Munk). New County record for Lander County--ranged 2-5 per sweep on seed alfalfa at Reese River on May 5, 1978. Collected by L.L. Stitt. Determined by R.C. Bechtel.



A. pisum also 2-5 per sweep at same site. Washoe County--both species, mainly blue alfalfa aphid heavy on hay alfalfa in Hualapai Valley, large areas in fields yellowed and browned. (Ginocchio). UTAH - Millard County--outbreak on forage legumes in Delta area. (Karren). KANSAS - Averages per 10 sweeps in 36 to 51-cm (14 to 20-in) alfalfa by county (1 field each): Lyon--2, Elk--6, and Neosho--6. (White).

SPOTTED ALFALFA APHID (Therioaphis maculata) - OKLAHOMA - Stephens County--averaged 1,100 per 10 sweeps in 1 alfalfa field week ending April 28. (Arnold). NEBRASKA - Lancaster, Gage, and Johnson Counties--ranged 0-6 (averaged 1.4) per 100 sweeps in 7 alfalfa fields. (Miller).

TARNISHED PLANT BUG (Lygus lineolaris) - OKLAHOMA - Ranged 2-10 per 0.09 sq m (sq ft) of alfalfa week ending April 28. (Arnold).

GREEN STINK BUG (Acrosternum hilare) - OKLAHOMA - Greer County--First of season. Averaged 2 per 10 sweeps week ending April 28. (Arnold).

BROWN WHEAT MITE (Petrobia latens) - NEVADA - Nye County--this species and CLOVER MITE (Bryobia praetiosa) ranged 150-300 (averaged 200) per sweep on 48.6 ha (120 acres) of hay alfalfa in Pahump Valley. (Martinelli, Zoller).

## **COTTON**

### INSECTS

BOLL WEEVIL (Anthonomus grandis) - NORTH CAROLINA - Southern area--winter survival very light as indicated by trash samples. Only 55 per 0.4 ha (acre) survived, 59% decrease from 1977 and lowest survival rate since trash sampling began. (Hunt, Bachaler).

BOLLWORM (Heliothis zea) - TEXAS - Counts by county per 100 cotton plants April 28: Cameron--eggs 0-20, Hidalgo--eggs 0-25, Willacy--eggs 0-12, Hidalgo and Willacy--larvae 0-5, Cameron--larvae 0-10. (Cocke et al.).

COTTON FLEAHOPPER (Pseudatomoscelis seriatus) - TEXAS - Counts by county per 100 cotton plants April 28: Cameron--0-15, Hidalgo--8-10, Willacy--2-15, and Refugio--1-10 (migrated). (Cocke et al.).

## **SUGAR BEETS**

### INSECTS

BEET LEAFHOPPER (Circulifer tenellus) - IDAHO - Southwestern half of State--heavy rainfall produced good host conditions over entire survey area. No concentrations of overwintered adults found, possibly due to drought of 1976-1977 and/or general scattered population over large area. Spring adult population averaged 10 per 9.29 sq m (100 sq ft) samples. Considered economic at 50 per 9.29 sq m. Adults per 9.29 sq m by area: Western--2, Mountain Home--3, Twin Falls--17, Snake River--12, Saylor Creek--9, Bell Rapids and Blue Gulch--19, Black Mesa--19, Grindstone Butte--12, and Browns Gulch and Browns Creek--9. (Homan).

## **MISCELLANEOUS FIELD CROPS**

### INSECTS

REDBACKED CUTWORM (Euxoa ochrogaster) - OREGON - Jefferson County--3rd and 4th instar larvae reached treatable levels [5+ per 0.09 sq m (sq ft)] in 2 pepper-mint plantings near Madras. (Fisher).

## POTATOES, TOMATOES, PEPPERS

### INSECTS

VEGETABLE WEEVIL (Listroderes costirostris obliquus) - SOUTH CAROLINA - Colleton County--adults 1-2 per tomato plant on about 50% of 200+ tomato plants 5 cm (2 in) tall April 27. Controls recommended. (Yates et al.).

## BEANS AND PEAS

### INSECTS

VEGETABLE WEEVIL (Listroderes costirostris obliquus) - FLORIDA - Jackson County--damaged all field pea plants in 0.8-ha (2-acre) field April 10. (Brewton). Northern area--heavier than in 23 years on tobacco, tomatoes, peas, lima beans, and others. Gadsden County--heavy on tomatoes. (Tappan).

## DECIDUOUS FRUITS AND NUTS

### INSECTS

CODLING MOTH (Laspeyresia pomonella) - KANSAS - Sedgwick and Montgomery Counties--first of season trapped in apple orchards. (Morris et al.).

REDBANDED LEAFROLLER (Argyrotaenia velutinana) - INDIANA - Tippecanoe County--273 adults in 5 pheromone traps in deciduous fruit orchards April 27 to May 3, up from 219 past week. (Meyer).

HICKORY SHUCKWORM (Laspeyresia caryana) - OKLAHOMA - Payne County--first adults of season on pecan April 26; 9 adults taken in 2 light traps in pecan orchard April 28. (Arnold).

PECAN NUT CASEBEARER (Acrobasis nuxvorella) - OKLAHOMA - First of season. Payne County--overwintered larvae infested 25% of pecan shoots in Perkins area, April 26; 9 adults taken in 2 light traps in pecan orchard April 28. (Arnold).

## SMALL FRUITS

### DISEASES

RED STELE DISEASE (Phytophthora fragariae) - CALIFORNIA - Monterey County--heavily infected 50% of first, second, and third-year strawberry plantings at Moss Landing. (Oliver, White).

## ORNAMENTALS

### INSECTS

BAGWORM (Thyridopteryx ephemeraeformis) - OKLAHOMA - First of season. Pittsburg County--small larvae on evergreens in McAlester area April 26. (Arnold).

A SCOLYTID BEETLE (Xyleborus dispar) - OREGON - Clackamas County--adults bored into about 10-20% of 1,000+ of 4 to 5-year-old Koeleruteria paniculata (golden-rain) trees "heeled in" in sawdust at commercial nursery near Boring on April 28. (Penrose).

A DIASPIDID SCALE (Kuwanaspis pseudoleucaspis) - FLORIDA - New county record. Osceola County--adults infested Bambusa sp. (bamboo) near St. Cloud, March 16, 1978. Collected by W.J. Shirley and G.T. Smith. Determined by A.B. Hamon. (Mead).

## FOREST AND SHADE TREES

### INSECTS

PINE NEEDLE SCALE (Chionaspis pinifoliae) - TENNESSEE - McNairy County--very heavy on loblolly pine plantings. (Locke).

## MAN AND ANIMALS

### INSECTS

A MOSQUITO (Culex nigripalpus) - FLORIDA - Hillsborough County--increased populations in pools of water in pastures, roadside ditches, and wooded areas. (Taylor). This species of special concern in epidemiology of St. Louis encephalomyelitis in State. (Mead).

HORN FLY (Haematobia irritans) - OKLAHOMA - Counts per head of cattle by county week ending April 28: Pawnee--averaged 400, Major--200, and Garfield--ranged 100-150 week ending April 28. (Arnold). FLORIDA - Alachua County--averaged 188 per head in small beef herd at Gainesville. (Johnson). Marion County--up to 300 per horse at Ocala. (Butler).

GULF COAST TICK (Amblyomma maculatum) - OKLAHOMA - Pawnee County--First of season. Averaged 10 per head on cattle week ending April 28. (Arnold).

AMERICAN DOG TICK (Dermacentor variabilis) - OKLAHOMA - First of season in Noble County April 18. (Arnold).

## BENEFICIAL ORGANISMS & THEIR ENEMIES

### INSECTS

AN APHIDIID WASP (Lysiphlebus testaceipes) - OKLAHOMA - Southwestern counties--parasitism of Schizaphis graminum (greenbug) up to 90% in wheat. Major County--wasp adults 0-3 per 0.3 row m (row ft) with more than 50% of greenbug parasitized week ending April 28. (Arnold).

A KLAMATHWEED BEETLE (Chrysolina quadrigemina) - CALIFORNIA - Trinity County--first adults of season began to appear and actively fed on Hypericum perforatum (common St. Johnswort) at Ruth (Six Rivers National Forest). Pupae generally heavy in soil beneath weed (Spadoni).

## FEDERAL AND STATE PROGRAMS

### INSECTS

CEREAL LEAF BEETLE (Oulema melanopus) - INDIANA - Harrison County--eggs averaged about 3 per 0.3 row m (row ft) in most heavily populated part of wheat field April 28. Adults 15-33 per 25 sweeps in same area. (Shade). OHIO - Adults per sweep of wheat (first node of stem visible unless stated otherwise): Columbiana--0.03 (leaf sheath erected), Warren--0.32 (stages up to first node of stem visible), Clermont--2.66, and Brown--0.23. (Drees).

CITRUS BLACKFLY (Aleurocanthus woglumi) - FLORIDA - New county record. St. Lucie County--female pupae and egg cases on 1 of 2 citrus trees at residence at Port St. Lucie, April 28, 1978. Collected by S.R. Metzler. Determined by E.W. Campbell; confirmed by A.B. Hamon. Most northern record except for Okeechobee record. Nearest commercial grove area 13 km (8 miles) away. (Mead).



GRASSHOPPERS - COLORADO - Pueblo County--mainly Psoaloessa delicatula 3rd and 4th instars, overwintered nymphs, 10-20 per 0.8 sq m (sq yd) on 50,000 ha (123,500 acres). Cooperative control assistance requested. (Kennan, Sexton).

GYPSY MOTH (Lymantria dispar) - PENNSYLVANIA - Southern counties--first hatch of season underway. Perry County--hatched in Rye Township April 27, and hatched 50-80% near Marysville, May 3. (Simons).

JAPANESE BEETLE (Popillia japonica) - MARYLAND - Howard County--light to moderate in 1.6 ha (4 acres) of bluegrass sod, larvae averaged 3 per 0.09 sq m (sq ft). (Hellman, Pinto). PENNSYLVANIA - Delaware County--larvae light on golf course at Wayne on April 26. (Heller).

WHITEFRINGED BEETLES (Graphognathus spp.) - FLORIDA - Jefferson County--larvae damaged almost 50% of 24-ha (60-acre) planting of tobacco; acreage plowed up, treated, and reset with young tobacco plants April 25. (Halsey). Suwannee County--first larvae on property at Live Oak, April 27. (Johnson). Suwannee and Jefferson Counties--larvae widespread and heavy. (Tappan).

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## HAWAII PEST REPORT

General Vegetables - MELON FLY (Dacus cucurbitae) infestations and damage heavy (50+%) on 0.8 ha (2 acres) of watermelons at upper Hoolehua, Molokai Island. In another 0.8 ha of watermelons, 50% showed dieback of 1 or more primary vines. CARMINE SPIDER MITE (Tetranychus cinnabarinus) moderate to heavy (10% yield loss) on mature watermelons in 1 ha (3 acres) at lower Hoolehua. PEPPER WEEVIL (Anthonomus eugenii) infestations and damage severe (all plants infested and premature fruit drop) on green peppers in 2 ha (6 acres) at Hoolehua. DIAMONDBACK MOTH (Plutella xylostella) and CABBAGE LOOPER (Trichoplusia ni) damage severe to broccoli foliage on 0.10 ha (0.25 acre) at Hoolehua. (L. Nakahara).

Beneficial Organisms - An ANTHOCORID BUG (Paratriphleps laeviusculus) collected in alfalfa field April 25, 1978, for a new island record. This predator of thrips collected at Hoolehua, Molokai, by L. Nakahara and determined by S. Higa. (L. Nakahara).

## DETECTION

### NEW COUNTY AND ISLAND RECORDS

#### INSECTS

An ANTHOCORID BUG (Paratriphleps laeviusculus) - HAWAII - Molokai. (p. 191).

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - NEVADA - Lander. (p. 187).

CITRUS BLACKFLY (Aleurocanthus woglumi) - FLORIDA - St. Lucie. (p. 190).

A DIASPIDID SCALE (Kuwanaspis pseudoleucaspis) - FLORIDA - Osceola. (p. 189).

## CORRECTIONS

CPPR 3(16):153 - BLUE ALFALFA APHID (Acyrtosiphon kondoi) - NEVADA - Storey County--"Counts of 100-750" ... should read "Counts of 750-1,000" ... (Bechtel).

## LIGHT TRAP COLLECTIONS

[illegible]

# Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff  
Plant Protection and Quarantine Programs, USDA

	<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Destination</u>
<u>Puccinia pogonarthrae</u> Hopkins a rust Det. F.G. Pollack	uredial	on leaves of <u>Eragrostis</u> plants	Union of South Africa	Beltsville	MD
<u>Puccinia thaliae</u> Diet a rust Det. J. Van Valkenburg	uredial	on leaves of <u>Canna</u> plants	Mexico	Brownsville	TX
<u>Acalles</u> sp. a weevil Det. D.R. Whitehead	adult	with <u>Bromeliad</u> plants from baggage	Mexico	Houston	FL
<u>Altica</u> sp. a leaf beetle Det. R. White	adult	with pulpwood from cargo	Brazil	New Orleans	TN
<u>Dysdercus supersticiosus</u> (Fabricius) a pyrrhocorid bug Det. J.L. Herring	adult	with <u>Ananas</u> plants from cargo	Ivory Coast--	Kennedy Airport	USA
<u>Polygraphus polygraphus</u> (Linnaeus) a scolytid beetle Det. D.M. Anderson	adult	in wood bracing with machinery	Czechoslovakia	New York	NJ
<u>Pantomorus</u> sp. a weevil Det. D.R. Whitehead	adult	with <u>Tillandsia</u> plants from cargo	Peru	Los Angeles	CA
<u>Pityogenes chalcographus</u> (Linnaeus) a scolytid beetle Det. D.M. Anderson	all	in dunnage with steel	Finland	New Orleans	FL





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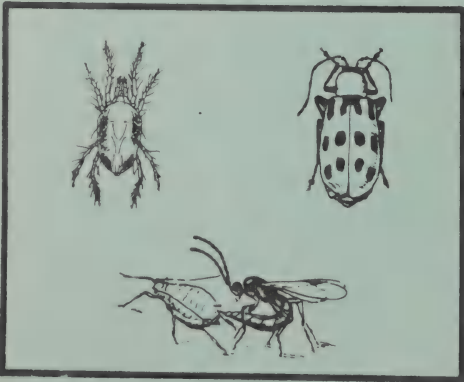
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# Cooperative PLANT PEST REPORT

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This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

*Cooperative Plant Pest Report* supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

*Correspondence should be directed to:*

*CPPR*

New Pest Detection and Survey Staff  
Plant Protection and Quarantine Programs  
Animal and Plant Health Inspection Service  
U.S. Department of Agriculture  
Federal Building #1  
Hyattsville, Maryland 20782

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## COOPERATIVE PLANT PEST REPORT

### HIGHLIGHTS

#### Current Conditions

CORN ROOTWORM hatch projected to be heavier in Wisconsin. (p. 197).

More WHEAT LEAF RUST in southeastern States this year than last. (p. 197).

Defoliation from SPRING BLACK STEM common on alfalfa in eastern two-thirds of Kansas. Infection early in Wisconsin. (p. 200).

ALFALFA WEEVIL damage heavy in parts of eastern Oklahoma, southeastern Missouri, central Kentucky, and West Virginia. (p. 201-202).

First BLUE ALFALFA APHID damage in Oregon. Damage severe in western corner of Nevada. (p. 203).

WHEAT STEM RUST overwintered in Baton Rouge, Louisiana. (p. 207).

#### Detection

A WEEVIL in Illinois is a new State record. (p. 206).

For new county records see page 209.

Reports in this issue are for the week ending May 12 unless otherwise indicated.

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## CORN, SORGHUM, SUGARCANE

### INSECTS

EUROPEAN CORN BORER (*Ostrinia nubilalis*) - DELAWARE - Sussex County--first adult of season in blacklight trap. Statewide--overwintered borers 42-50% pupated. (Burbatis, Kelsey). MARYLAND - Eastern Shore counties--pupation 50-75%, egg laying expected to peak May 30, development 14-21 days behind normal. (Hellman, Pinto). ILLINOIS - Extreme southern area--pupation 16% in Johnson County. Central and northern areas--no pupation yet. (Black).

CORN EARWORM (*Heliothis zea*) - FLORIDA - Alachua County--adults averaged 3-4 per pheromone trap per night; 4th instar larvae began moving into sweet corn silks in commercial plantings near Alachua. Grower sprayed for control. (Mitchell).

CORN ROOTWORMS (*Diabrotica* spp.) - WISCONSIN - Overwintered survival heavy in laboratory. Predicted hatch about 95% compared with 55% in 1977. Hatch averaged 75.8% in 8 previous years. Present hatch consistently heavy in all areas surveyed, projected hatch not less than 86% in any area. (Lovett).

SUGARCANE BEETLE (*Euetheola rugiceps*) - SOUTH CAROLINA - Colleton County--in about 5% of corn stand, damage moderate by May 5. No control available. (Yates, Griffin).

GREENBUG (*Schizaphis graminum*) - OKLAHOMA - Kay County--winged adults and small nymphs 1-30 (averaged 10) per corn plant 10 cm (4 in) tall in field in Tonkawa area. (Arnold).

CORN LEAF APHID (*Rhopalosiphum maidis*) - OKLAHOMA - Kay County--up to 15 (averaged 5) per plant on 10-cm (4-in) corn in Tonkawa area. (Arnold).

### **SMALL GRAINS**

### DISEASES

Winter colder than normal in most southern cereal regions with below average precipitation. Small grain maturity April 26 to May 9 throughout southeastern States and southern Great Plains 7-14 days later than normal. Apparently harvest will start in first half of June from north-central Texas into Kansas. Wheat in north-central Texas generally poor, better in Vernon and Wichita Falls and in Dallas and Sherman areas. Dry winter and early spring increased use of wheat as pasture. In Texas, trace to 33% of fields grazed out depending on area, while in Kansas and Oklahoma only few fields pastured. Recent rains in north-central Texas too late to save majority of crop fields.

WHEAT LEAF RUST (*Puccinia recondita* f.sp. *tritici*) widespread on wheat April 26 to May 9 but severity ranged trace to 80% throughout southeastern States, generally more leaf rust in this area than in 1977. At Baton Rouge and Alexandria, LOUISIANA, and at Quincy and Jay, FLORIDA, leaf rust severe on McNair 701, which has LR 9 (Transfer) resistance. In TEXAS, generally light in commercial fields. Most of population avirulent on LR 9 but virulent on LR 24. Variety Sturdy also resistant. A few pustules observed in OKLAHOMA and KANSAS but much less than normal for this time of year. (Roelfs, Long). KANSAS - Neosho County--wheat leaf rust trace in 1 wheat field week of May 5. Currently in central area from southern to northern borders--mostly trace; south-central area--prevalence increased, severity light in all fields. Prevalence on 36 to 61-cm (14 to 24-in) wheat by county: Haskell, Republic, Harvey, Saline, and Kiowa--trace; Kingman--50%; Reno--100%; Rice--10%; Butler--20%; and Cowley--80%. (Sim).

YELLOW STRIPE RUST (*Puccinia striiformis*) on wheat in mid-April in southern TEXAS (Johnson) where Coker 68-15 most susceptible of cultivars observed. Severe on some lines at Davis, CALIFORNIA, nursery. (Brownell).

OAT CROWN RUST (*Puccinia coronata* var. *avenae*) light on oats in southern States for second consecutive year. Cold weather and resistant varieties could account for light crown rust. Traces in nurseries at Fairhope, ALABAMA; Quincy, FLORIDA; and Temple, TEXAS, by May 1. A month earlier, crown rust heavy in centers at Beeville and Tynan, Texas nurseries. Latter evidently has not spread much, as no crown rust observed in north-central Texas last week on commercial or wild oats. (Roelfs, Long).

BARLEY LEAF RUST (*Puccinia hordei*) heavy on some barley lines in forage plot at Temple, TEXAS, in mid-March, but clipping in April, seemingly eliminated leaf rust as it failed to spread to other parts of nursery. On a few barley lines in barley plots in southeastern United States. (Roelfs, Long).

LOOSE SMUT (*Ustilago nuda*) - KANSAS - First of season. Sumner County--trace in 1 wheat field. (Sim).

WHEAT POWDERY MILDEW (*Erysiphe graminis* f. sp. *tritici*) light on wheat in early spring. More obvious in South. (Roelfs, Long). OKLAHOMA - Kay County--prevalence 100%/severity 10-90% on wheat cultivar TAM 101. (Hameed et al.). KANSAS - Prevalence/severity on wheat by county week of May 5: Wilson--80%/light and Neosho--trace to 5%/light. Currently in eastern half of State--built up on heavily seeded wheat. Prevalence/severity on wheat [boot or 36-69 cm (14-27 in) tall] by county: Geary--90%/light, Morris--60%/light, Marion--60-90%/light to moderate, Harvey--100%/severe, Reno--100%/moderate, McPherson--10-90%/light to moderate, Saline--70-100%/moderate, Montgomery--50%/heavy, Elk--10%/light, Kiowa--30%/light, Kingman--1%/light, Rice--100%/severe, Butler--100%/moderate, Sedgwick--100%/heavy, and Cowley--100%/heavy. (Sim). WISCONSIN - Columbia County--light, beginning infection on winter wheat. Cool, damp weather could favor development. (Lovett).

SPECKLED LEAF BLOTCH (*Septoria tritici*) - KANSAS - Prevalence/severity on wheat by county week of May 5: Wilson--80%/light, Neosho--100%/moderate, and Labette--100%/moderate. Eastern two-thirds area--current prevalence varied from wheat field to field but most active in south-central and southeastern sections. (Sim).

SEPTORIA GLUME BLOTCH (*Leptosphaeria* (*Septoria*) *nodorum*) in wheat fields and nurseries of southeastern States, April 26 to May 5 but should cause little loss. (Roelfs, Long).

EYESPOT (*Pyrenophora trichostoma*) - KANSAS - Prevalence/severity on wheat by county week of May 5: Jefferson--2%/light, Doniphan--5%/light, Wilson--10-100%/light, Neosho--trace/-, and Allen--20%/light. Infections not as severe in 1978 as in 1977 when this disease reached epidemic proportions. (Sim).

BARLEY NET BLOTCH (*Pyrenophora* (*Helminthosporium*) *teres*) - CALIFORNIA - Monterey County--prevalence of this disease and RHYNCHOSPORIUM SCALD (*Rhynchosporium secalis*) 90% in 16 ha (40 acres) of barley at Lockwood. (Oliver, Ewing).

CEPHALOSPORIUM STRIPE (*Cephalosporium gramineum*) - KANSAS - First of season. Sedgwick and Allen Counties--trace amounts on wheat week of May 5. Central area--currently more evident. Prevalence/severity on wheat [boot or 36-61 cm (14-24 in) tall] by county: Morris--3%/light, Marion--trace/-, Harvey--2-10%/light, Reno--1%/light, and Saline--trace/- (Sim).

DRYLAND FOOT ROT (*Fusarium* and *Helminthosporium* spp.) light and scattered on wheat in north-central TEXAS, April 26 to May 1. (Roelfs, Long). KANSAS - Western area--still evident on wheat week of May 5. Meade, Seward, Haskell, Finney, Scott, Logan, Thomas, Decatur, and Norton Counties--most severe in southwestern area, decreased toward northwestern area. (Sim).

GRASS DOWNY MILDEW (*Sclerophthora macrospora*) - KANSAS - First of season. Neosho County--trace amounts on wheat week of May 5. (Sim).

BARLEY YELLOW DWARF LUTEOVIRUS - Red leaf widespread on oats in southern TEXAS in late March but losses generally light. (Roelfs, Long). KANSAS - Southeastern area--evident in several wheat fields especially where aphids present week of May 5. Prevalence on wheat [boot or 30-61 cm (12-24 in) tall] by county: Chautauqua--15%, Labette--15%, Neosho--5-10%, Allen--5%, and Wilson--15%. Current prevalence: Osborne, Russell, Lincoln, Reno, Coffey--trace; Harvey--trace to 5%, Elk--10%, Kiowa--2%, and Kingman--20%. (Sim).

WHEAT STREAK MOSAIC VIRUS - KANSAS - Central area--still evident in wheat week of May 5, in Russell, Kingman, Kiowa, and Pratt Counties. (Sim). Current status by county: Rooks and Russell--light; Sedgwick, Stafford, and Clay--present; Pratt--prevalence 100% in 1 field. (Sim).

## INSECTS

ARMYWORM (*Pseudaletia unipuncta*) - OKLAHOMA - First of season. Noble, Kay, and Garfield Counties--small larvae light in few wheat fields. (Arnold).

A GRAPE COLASPIS (*Colaspis* sp.) - ARKANSAS - Arkansas County--larvae 2 per soil core sample [550 cc (33.6 cu in)] in experimental rice field at Stuttgart. Rice seedlings about 6-8 cm (2-3 in) tall; 60% of larvae sampled at depth greater than 9 cm (4 in). Damage above ground not apparent, but below ground, some larvae feeding where rice shoot emerged from seed. (Mayse).

RICE WATER WEEVIL (*Lissorhoptrus oryzophilus*) - ARKANSAS - Arkansas County--adults less heavy than 14 days ago in leaf litter samples in experiment station at Stuttgart. Sticky traps set April 26 and collected May 10 indicated that emergence flights from overwintering sites began during that time. (Mayse).

ASTER LEAFHOPPER (*Macrosteles fascifrons*) - MINNESOTA - Sherburne County--first find on winter rye at Becker, averaged 1 per 100 sweeps. (Sreenivasam).

RICE STINK BUG (*Oebalus pugnax*) - ARKANSAS - Mississippi County--first adult of season from Rumex sp. (dock). (Mayse).

GREENBUG (*Schizaphis graminum*) - OKLAHOMA - Garfield, Kay, and Payne Counties--up to 30 per 0.3 row m (row ft) of wheat. (Arnold).

CORN LEAF APHID (*Rhopalosiphum maidis*) - MISSISSIPPI - Pontotoc County--adults and nymphs 5-38 per 25 sweeps of ripening oats, no damage. (Anderson).



## TURF, PASTURES, RANGELAND

### INSECTS

ARMY WORM (*Pseudaletia unipuncta*) - MISSOURI - South-central area--small larvae light, 0-3 per 0.09 sq m (sq ft) of fescue. (Munson).

BRONZED CUTWORM (*Nephelodes minians*) - SOUTH CAROLINA - Pickens County--heavily damaged about 0.10-ha (0.25-acre) fescue lawn by May 2. Normally found in more northern areas. Controls recommended. (Kissam).

### FORAGE LEGUMES

### DISEASES

SPRING BLACK STEM (*Phoma medicaginis*) - KANSAS - Prevalence/severity on alfalfa 33-61 cm (13-24 in) tall by county week of May 5: Douglas--50%/light, Lyon--85%/light, Elk--100%/light, Allen--100%/light, Montgomery--10-100%/light, Cherokee--100%/light, and Labette--50%/moderate. Currently still most widespread alfalfa disease. Defoliation common in eastern two-thirds of State. Prevalence/severity on alfalfa 30-61 cm (12-24 in) tall by county: Riley--100%/light, Marshall--100%/moderate, Morris--100%/moderate, Lyon--100%/light, Coffey--90%/light, Franklin--trace/-, Allen--100%/light, Elk--100%/light, Montgomery--100%/light, Cherokee--100%/light, Republic--70%/moderate, Jewell--90%/severe, Lincoln--10%/light, Smith--70%/moderate, Osborne--30%/moderate, Dickinson--100%/moderate, Marion--100%/moderate to heavy, Saline--100%/light, McPherson--80-100%/moderate, Harvey--100%/moderate, and Reno--100%/moderate. (Sim). WISCONSIN - Columbia County--infection early on lower leaflets, stems, and petioles on alfalfa, severity will increase until harvest. (Lovett).

LEPTOSPHERULINA LEAF SPOT (*Leptosphaerulina briosiana*) - KANSAS - Prevalence/severity on alfalfa 33-61 cm (13-24 in) tall by county week of May 5: Dickinson--100%/moderate, Morris--100%/moderate, Douglas--90-100%/moderate to heavy, Doniphan--100%/heavy, Lyon--35%/light, Elk--80-100%/light to heavy, Saline--100%/light, Allen--trace to 25%/light, Montgomery--10-55%/light, and Cherokee--50%/light. Currently: Washington--40%/light, Republic--10%/light, Jewell--20%/light, Lincoln--5%/light, Marshall--trace/-, Lyon--50%/light, Coffey--90%/light, Allen--25%/light, Elk--70%/light, Montgomery--40%/light, Cherokee--25%/light, and Franklin--trace/- (Sim).

STEMPHYLIUM LEAF BLIGHT (*Stemphylium botryosum*) - KANSAS - First of season in northeastern area. Doniphan County--prevalence 100% in 1 alfalfa field week of May 5. Central and southwestern areas--currently more prevalent in 1978 than in 1977. Prevalence/severity on alfalfa 38-61 cm (15-24 in) tall by county: Jewell--1%/light, Lincoln--60%/moderate, Marshall--trace to 50%/light, Marion--10%/light, Harvey--60%/moderate, Reno--10%/light, McPherson--40%/light, Coffey--trace/-, Montgomery--trace/-, and Cherokee--10%/light. (Sim).

COMMON LEAF SPOT (*Pseudopeziza medicaginis*) - KANSAS - Most prevalent in southeastern area. Prevalence/severity on alfalfa 36-61 cm (14-24 in) tall by county week of May 5: Lyon--4%/light, Allen--trace to 100%/light to heavy, Montgomery--30%/light, Cherokee--30%/light, Labette--100%/moderate, and Wilson--50%/moderate. Central area--currently more prevalent in fields surveyed in 1978 than in 1977. Prevalence/severity on alfalfa 30-61 cm (12-24 in) tall by county: Morris--80%/light, Dickinson--10%/light, Marion--100%/moderate to severe, Harvey--60%/moderate, Reno--50%/moderate, McPherson--10-100%/light to moderate, Saline--100%/light, and Montgomery--trace/- (Sim).



## INSECTS

ALFALFA WEEVIL (*Hypera postica*) - OREGON - Klamath County--adults on alfalfa in lower Klamath Basin. Hatch began and several 1st instar larvae at Merrill and Midland. (Penrose). NEVADA - Counts per sweep of hay alfalfa by county: Lyon--1st through 3rd instar larvae, mainly 1st instar, averaged 15 in Mason Valley (Blalock); Churchill--1-4 in Stillwater area (Hilbig). NEW MEXICO - Chaves County--adults averaged 2-7 and larvae 1-5 per 25 sweeps of alfalfa in Roswell area. (Riddle). TEXAS - Reeves County--heavy in uncut alfalfa fields May 4, adults 133 and larvae 71 per 50 sweeps. (Foster).

OKLAHOMA - Alfalfa weevil status on alfalfa by county week of May 5: Stephens, Grady, and Payne--larvae 20-30 per 0.09 sq m (sq ft), most larvae pupated; Noble and Bryan--larvae moderate; Wagoner and Muskogee--damage heavy to second growth; Carter--adult damage heavy in 2 fields. Current status per 10 sweeps of alfalfa unless otherwise stated by county: Grady--newly emerged adults averaged 65; Stephens--newly emerged adults 17-93; Garfield--larvae 0-12 per 0.09 sq m; Muskogee--larvae averaged 6; Washita--larvae averaged 1; Stephens, Jackson, Comanche, Kiowa, Grady, and Caddo--damage moderate in several uncut fields. (Arnold). MISSOURI - Southeastern area--larvae heavy, 20-65 per 10 stems, all larval stages found. Pupation well underway and new adults noted. Damage severe in untreated fields. (Munson).

ILLINOIS - Most areas--cool weather retarded development of alfalfa weevil problems week of May 5. South of State Highway 13--some alfalfa fields needing treatment cut; many fields will be treated with stubble spray. Between State Highway 13 and U.S. Highway 50--occasional fields needing treatment cut. Between U.S. Highway 50 and U.S. Highway 36--buildup slow. North of U.S. Highway 36--only occasional fields with feeding; chemical treatment not expected to be needed. Currently in southeastern and southwestern areas--additional fields, close to or greater than 51 cm (20 in), cut; only few fields in extreme southern areas will reach bud stage before cutting. Between U.S. Highway 50 and U.S. Highway 36--still very light with little or no potential for damage to first growth. Pupation should be starting in southern areas. (Black).

WISCONSIN - Southwestern area--alfalfa weevil adult populations and activity, and larvae from fall eggs increased. Grant and Dane Counties--adults up to 6 per 25 sweeps, larvae about 3 per 50 sweeps. (Lovett). TENNESSEE - Total ha (acres) of forage legumes surveyed, ha (acres) requiring controls, and ha (acres) treated by county week ending May 5: Bedford--203 ha (500 acres), 203 ha, 182 ha (450 acres); Blount--81 (200), 81, 81; Chester--30 (75), 20 (50 [4.1 ha (10 acres) cut early]), 10 (25); Cumberland--20 (plus 10 ha newly planted), 4.1 well above control level with 90-95% tips infested and 6.1 (15) near or at control levels, 0; Davidson--101 (250), 101, 60.8 (150); Fayette--48.6 (120), 20, 4.5 (11); Gibson--20, 20, 20; Grundy--344 (850), 91.1 (225), 77.0 (190); Hardeman--122 (300), 122, 0; Hawkins--70.9 (175), 60.8, 40.5 (100); Henry--203, 162 (400), 81; Knox--122, 40.5, 20; Lake--486 (1,200), 324 (800), 243 (600); Lauderdale--132 (325), 20, 20; Loudon--203, 203, 203; Marion--32 (78 [7.3 ha (18 acres) seeded this spring]), 24 (60), 24 with aerial controls good; Marshall--219 (540), 219, 162 (400); Monroe--203, 122, 101; Obion--122 81, 20; Perry--0, 0, 0; Putnam--60.8, 60.8, 36 (90); Rhea--16 (40), 3 (8), 0; Robertson--1,215 (3,000), 1,215, all ha except newly seeded crops; Sullivan--122, 122, 101; Tipton--284 (700), 122, 101; Trousdale--16 (40), 16, 12 (30); and Weakley--40.5, 40.5, 40.5. (Fox et al.).

KENTUCKY - Alfalfa weevil status on alfalfa by area: Southern--larvae began to pupate in forage legumes and harvest began; central (60% of alfalfa grown in State)--damage appeared heaviest with decrease farther west and/or north, fields treated or heavily damaged (damage up to 50%); western corner--defoliation less than 20% in untreated fields, harvest without treating expected. (Sloderbeck). INDIANA - Central district--hatch still light, infestations about 15%. South-central district--hatch of spring eggs continued to increase percent of plants infested and larvae per stem; peak not in sight. Eggs in stems still unusually heavy for time of year. Number of untreated fields, mean % infested, mean larvae and eggs per stem, instar ratio of 1st+2nd:3rd+4th by district: West-central--6, 11.3%, 1.2 and 0.11, 73:27, central--4, 19.3%, 1.5 and 0.73, 96:4, southwest--4, 62.5%, 1.9 and 0.44, 21:79, and south-central--15, 85.9%, 3.7 and 1.44, 52:48. Alfalfa 26.0-45.5 cm (10-17.9 in) tall. (Meyer).

MICHIGAN - Alfalfa weevil status on forage crops by county: Ottawa, Saginaw, and Muskegon--adults active; Livingston, Ingham, Lapeer, and Macomb Counties--adults and small larvae active; Kalamazoo--all stages noted. (Ruppel). FLORIDA - New county record. Jefferson County--larvae heavy, damaged leaves and blooms of *Trifolium incarnatum* (crimson clover) at Monticello, April 7, 1978. Collected by L.H. Halsey. Determined by D.H. Habeck. (Mead). SOUTH CAROLINA - Status on alfalfa by county May 3: Newberry, Greenwood, Greenville, and Anderson--very little activity due to recent treatment or cutting; and Pickens--activity moderate but apparently decreased compared with previous weeks in untreated field. Larvae began to pupate. (Hearn, Griffin).

WEST VIRGINIA - Alfalfa weevil larval averages (3rd and 4th instars) per 30 alfalfa tips by county: Jefferson--18.9 in 8 fields, Berkeley--21.4 in 10 fields, treatment planned week of May 15 for most fields in both counties; Wood--15 with larval feeding heavy and tip infestation 70%; Jackson--12 with tip infestation 90%; Hardy--tip damage 30-40%; Mineral--tip damage 70%; Preston--larvae (stage not given) 3 per 50 tips; and Mason--15 with average of 1.2 per sweep. Alfalfa averaged from less than 15 to 48 cm (6 to 19 in) tall. (Hacker et al.). MARYLAND - Status on alfalfa by county: Montgomery, Prince Georges, and middle Eastern Shore counties--3rd and 4th instars peaked, sprays underway; Montgomery--50% of fields over economic levels, larvae averaged 40 (maximum 130) per 30 stems, larvae 90% 3rd and 4th instars, tip damage 40% (maximum 80%); Frederick and Carroll--larvae averaged 15-20 per 30 stems, tip damage 20%, 50% 3rd and 4th instars; Washington--treatment recommended for 25 of 70 fields in pest management programs; and Baltimore--treatment recommended for 1 of 33 fields. (Hellman, Pinto).

CLOVER LEAF WEEVIL (*Hypera punctata*) - CALIFORNIA - Siskiyou County--up to 5 per crown bud in 263 ha (650 acres) of alfalfa in Butte Valley near Macdoel. (Benton). MISSOURI - Larvae per 0.09 sq m (sq ft) of forage legumes by area: Southeastern area--averaged 2 in 2 fields; north-central area--ranged 2-5 in red clover. (Munson).

VETCH BRUCHID (*Bruchus brachialis*) - OKLAHOMA - First of season. Payne County--swept from alfalfa. (Arnold).

VARIEGATED CUTWORM (*Peridroma saucia*) - INDIANA - Lawrence County--first adult in blacklight trap in forage legumes May 5-6. (Ross).

GREEN CLOVERWORM (*Plathypena scabra*) - KENTUCKY - First adult of season. Fayette County--in blacklight trap May 7-8. (Sloderbeck).

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - OREGON - Jackson County--very heavy in several ha (hundred acres) of alfalfa in Jacksonville and Central Point area. First damage 14 days ago. Areas of stunted, twisted, and yellowed plants on about 142 ha (350 acres). Aphids 100+ on individual stems. First authentic record of damage by this aphid in State. Affected growers treated early. Klamath County--in only 2 fields near Stewart and Lennox, populations scarce. (Penrose). NEVADA - New county record. Elko County--averaged 10 per sweep on 40.5 ha (100 acres) of hay alfalfa in Pine Valley on May 9, 1978. Collected by S.D. Peters. Determined by R.C. Bechtel. PEA APHID (A. pisum) also averaged 10 per sweep at same site. (Peters). Douglas County--both species, mainly blue alfalfa aphid, severely damaged 90% (killed top growth to crown) of plants on 810.0 ha (2,000 acres) of hay alfalfa in Minden and Gardnerville areas. Remaining 10% of 20 to 25-cm (8 to 10-in) plants wilted, aphids averaged 0.1 liter (0.5 cup) per plant. (Lauderdale, Peterson). Lyon County--25-75 (averaged 60) per sweep of hay alfalfa in Mason Valley. (Blalock). Churchill County--averaged 50 per sweep of hay alfalfa in Stillwater area. (Hilbig).

OKLAHOMA - Grady and Stephens Counties--blue alfalfa aphid averaged 31 and 14 per 10 sweeps, respectively, or 6.7% and 16.7% respectively of Acyrtosiphon population, in alfalfa week ending May 5. (Arnold). New county record for Ellis County--collected from alfalfa at Shattuck on May 9, 1978. Collected and determined by R.C. Berberet. Current counts per 10 sweeps of alfalfa by county: Payne--200 and 21 in 2 fields, Noble--20, Kay--25, Grady--53, and Stephens--1; all counts 6-10% of Acyrtosiphon population. (Arnold).

PEA APHID (Acyrtosiphon pisum) - TEXAS - Reeves County--20 per 50 sweeps of alfalfa May 4. (Foster). OKLAHOMA - Counts per 10 sweeps of alfalfa by county week of May 5: Muskogee and Wagoner--up to 1,000, Grady--averaged 430, and Stephens--averaged 70. Current counts: Payne--1,800 and 230 in 2 fields, Noble--180 (1 field treated), Kay--220, Washita--100, Grady--890, Muskogee--30, Stephens--17, and Garvin--2,500. Garfield--5-22 per 0.09 sq m (sq ft). (Arnold). MISSISSIPPI - Neshoba County--ranged 800 to several thousand per 25 sweeps in 24 ha (60 acres) of flowering vetch. Leaves discolored. Natural enemies heavy. (Anderson).

SPOTTED ALFALFA APHID (Therioaphis maculata) - OKLAHOMA - Stephens County--still heavy, 980 per 10 sweeps of alfalfa week ending May 5. (Arnold).

POTATO LEAFHOPPER (Empoasca fabae) - ILLINOIS - Mason County--adults 1 in 100 sweeps of alfalfa field near Havana week of May 5, farthest north collected this year. (Black).

MEADOW SPITTLEBUG (Philaenus spumarius) - MISSOURI - North-central area--spittle masses and small nymphs on red clover, first instar nymphs on 30% of plants. (Huggans).

TARNISHED PLANT BUG (Lygus lineolaris) - MISSISSIPPI - Neshoba County--adults and nymphs 8-25 per 25 sweeps of vetch. (Anderson). WISCONSIN - Southern area--adults readily found in most alfalfa fields. Rock and Crawford Counties--2 per 50 sweeps common. (Lovett).

LYGUS BUGS (Lygus spp.) - NEVADA - Humboldt County--1st instar nymphs on seed alfalfa at Jungo, about 14 days earlier than in 1977. (Stitt).

## **COTTON**

### INSECTS

BOLL WEEVIL (Anthonomus grandis) - TEXAS - Blacklands and gulf coast areas--adults light in traps April 14 to May 5. (Glodt et al.).

BOLLWORMS (Heliothis spp.) - TEXAS - Counts per 100 cotton plants by county May 5: Cameron--eggs up to 200 at Brownsville, 100 at La Feria in some fields, and 0-18 in most areas, larvae 3-23, damaged squares 1-27%, and TOBACCO BUDWORM (H. virescens) adults 12 per trap May 3; Hidalgo--Heliothis spp. eggs 100, near 1 in some fields, and 1-35 in most fields and damaged squares 1-40; Willacy--infested plants up to 40% and eggs 1-15; Kleberg--larvae 0-7 and eggs 0-4; Nueces--larvae 0-3 and eggs 0-2; San Patricio--larvae 0-4 and eggs 0-2; and Pecos and Reeves--ratio of female to male bollworms 9:11 per trap per night May 1-4. (Cocke et al.).

COTTON FLEAHOPPER (Pseudatomoscelis seriatus) - TEXAS - Percent infested cotton plants by county May 5: Cameron--0-25, Hidalgo and Willacy--1-15, Kleberg--0-11, Nueces--0-13, and San Patricio--0-6 (Cocke et al.); Bell and Falls Counties--present in some fields (Doggett).

COWPEA APHID (Aphis craccivora) - TEXAS - Williamson and Milam Counties--damage economic in few cotton fields May 3 (Glodt); Bell and Falls Counties--counts economic in some fields May 5 (Doggett).

## **TOBACCO**

### INSECTS

TOBACCO BUDWORM (Heliothis virescens) - SOUTH CAROLINA - Florence and Marion Counties--on tobacco by May 10. Moderate to heavy rains prevented any needed ground treatment. (Livingston, Carter).

## **DECIDUOUS FRUITS AND NUTS**

### DISEASES

BLACK KNOT (Dibotryon morbosum) - WISCONSIN - Dodge County--infected several cherry trees in nursery. Walworth County--totally and severely infected cherry orchard. (Lovett).

### INSECTS

ORIENTAL FRUIT MOTH (Grapholitha molesta) - OKLAHOMA - Wagoner County--adults 2-23 (averaged 9) per pheromone trap in 3 peach orchards (2 traps per orchard) in Porter area week ending May 1. Week ending May 8: Adults 2-27 (averaged 12) per pheromone trap in 3 peach orchards (6 traps). (Arnold).

CODLING MOTH (Laspeyresia pomonella) - OKLAHOMA - Wagoner County--adults 3-6 (averaged 4) per pheromone trap in 2 apple orchards (3 traps) in Porter area week ending May 1. Week ending May 8: adults 2 in 3 pheromone traps in 2 apple orchards. (Arnold). PENNSYLVANIA - First of season. Lancaster and Adams Counties--adults 1 per county in 2 light traps in deciduous fruits May 7. (White).

HICKORY SHUCKWORM (Laspeyresia caryana) - OKLAHOMA - Payne County--adults 42 in 2 light traps in pecan orchard May 6-8. (Arnold).



FRUITTREE LEAFROLLER (Archips argyrospilus) - CALIFORNIA - Fresno County--4th instar larvae ready to pupate in folded almond leaves at Fresno. (Dunnegan).

## SMALL FRUITS

### INSECTS

A DIASPIDID SCALE (Aulacaspis rosae) - FLORIDA - New county record. Osceola County--adults scattered on stems of Rubus sp. (blackberry) bush near St. Cloud, March 17, 1978. Collected by W.J. Shirley and G.T. Smith. Determined by A.B. Hamon. (Mead).

GRAPE LEAFFOLDER (Desmia funeralis) - CALIFORNIA - First larvae of season. Fresno County--1st instar larvae on commercial grapes in Caruthers area, May 5. (Dunnegan).

## ORNAMENTALS

### INSECTS

HOLLYHOCK WEEVIL (Apion longirostre) - OKLAHOMA - New county record. Lincoln County--heavy on Alcea rosea (hollyhock) 5 km (3 miles) east of Tryon, May 7, 1978. Collected by M. Hoisington. Determined by D.C. Arnold. (Arnold).

A DIASPIDID SCALE (Abgrallaspis townsendi) - FLORIDA - New county record. Franklin County--immatures infested leaves of Magnolia virginiana (sweetbay) plant along roadside near St. George Island, April 5, 1978. Collected by A.E. Graham, Q.G. Anglin, and J.J. McRitchie. Determined by A.B. Hamon. (Mead).

A DIASPIDID SCALE (Abgrallaspis howardi) - FLORIDA - New county record. Franklin County--adults and nymphs infested Persea borbonia (redbay) plant along roadside near St. George Island, April 5, 1978. Collected by Q.G. Anglin, A.E. Graham, and J.J. McRitchie. Determined by A.B. Hamon. (Mead).

A DIASPIDID SCALE (Velataspis dentata) - FLORIDA - New county record. Leon County--adults infested stems of Persea palustris (swampbay persea) plant near Tallahassee, April 14, 1978. Collected by Q.G. Anglin. Determined by A.B. Hamon. (Mead).

A DIASPIDID SCALE (Comstockiella sabalis) - FLORIDA - New county record. Hardee County--adults infested leaves of Sabal sp. (a palmetto) near Crewsville, May 3, 1978. Collected by L.J. Chambliss. Determined by A.B. Hamon. (Mead).

A DIASPIDID SCALE (Odonaspis penicillata) - FLORIDA - New county record. Osceola County--adults and immatures infested bark of Bambusa sp. (a bamboo) plant near St. Cloud, March 16, 1978. Collected by G.T. Smith and W.J. Shirley. Determined by A.B. Hamon. (Mead).

## FOREST AND SHADE TREES

### INSECTS

SPRUCE BUDWORM (Choristoneura fumiferana) - MAINE - From Mattawamkeag south--larvae active in exposed trees in stands. Eastern area (Moosehorn Refuge) and near Greenbush--larvae began to enter needles May 1-5. Aerial sprays will be applied to about 506,250.0 ha (1,250,000 acres) in late May or early June. Presque Isle and Millinocket will be principal spray bases. (Gall).

BALSAM TWIG APHID (Mindarus abietinus) - MAINE - South-central area--nymphs up to 10 or more on some balsam fir buds. Early numbers may indicate heavy buildup

BALSAM TWIG APHID (Microtus abietinus) - MAINE - South-central area--nymphs up to 10 or more on some balsam fir buds. Early numbers may indicate heavy buildup on Christmas trees. (Gall).

A DIASPIDID SCALE (Acutaspis perseae) - FLORIDA - New county record. Duval County--adults scattered on Pinus elliottii (slash pine) near Baldwin, March 15, 1978. Collected by L.S. Woodford. Determined by A.B. Hamon. (Mead).

A DIASPIDID SCALE (Diaspidiotus coniferarum) - FLORIDA - New county record. Franklin County--adults infested twigs of Juniperus virginiana (eastern redcedar) tree along roadside near St. George Island, April 5, 1978. Collected by A.E. Graham, Q.G. Anglin, and J.J. McRitchie. Determined by A.B. Hamon. (Mead).

SPRING CANKERWORM (Paleacrita vernata) - MINNESOTA - Metropolitan area--1st instar larvae emerged in 7-county area. (Sreenivasam).

## MAN AND ANIMALS

### INSECTS

HORN FLY (Haematobia irritans) - OKLAHOMA - Averages per head of cattle by county week ending May 5: Noble--150 and Pittsburg--80; Pawnee--currently 500. (Arnold). MISSISSIPPI - Amite and Wilkinson Counties--adults 50-70 per head of cattle week ending May 4. (Anderson). FLORIDA - Marion County--up to 325 per untreated horse at Ocala. (Butler).

## HOUSEHOLDS AND STRUCTURES

### INSECTS

A WEEVIL (Hexarthrum ulkei) - ILLINOIS - New State record. Cook County--first collected in woodwork of buildings at Chicago by T.E. Snyder in 1938; determined by L.L. Buchanan. Recently 3 specimens collected from infested post in home at Oak Park by L. Paul, March 31, 1978. Determined by J. Bouseman; confirmed by D.R. Whitehead. (Black).

## BENEFICIAL ORGANISMS & THEIR ENEMIES

### INSECTS

AN ICHNEUMONID WASP (Bathyplectes curculionis) - OKLAHOMA - Payne, Grady, Stephens, Carter, Murray, and Marshall Counties--adults (second generation) heavy in alfalfa week of May 5. Averaged 47 per 10 sweeps in Stephens County. Stephens and Grady Counties--current adults (second generation) up to 40 per 10 sweeps of alfalfa. (Arnold).

AN APHIDIID WASP (Lysiphlebus testaceipes) - OKLAHOMA - Garfield, Kay, and Payne Counties--adults averaged 5 and mummies ranged 5-15 per 0.3 row m (row ft) in aphid-infested wheat. (Arnold).

### WEEDS

A WEEVIL (Rhinocyllus conicus) - OKLAHOMA - Payne County--adults laying eggs on musk thistle at original release site, Boomer Dam, in Stillwater area. Infested 2 plants at second release site at Garden Gate, 2 km (1 mile) northeast of Boomer Dam; no infestations in 1977 surveys. Infested 4 plants 2.1 km (1.3 miles) northeast of Garden Gate site. (Arnold).

## FEDERAL AND STATE PROGRAMS

### DISEASES

STEM RUSTS (Puccinia graminis) - BARLEY TRITICI STEM RUST (P. graminis f.sp. tritici) on barley only in nursery in Yaqui Valley of MEXICO in mid-March. (Roelfs, Long).

OAT STEM RUST (P. graminis f.sp. avenae) first observed in 1978 as race 31 on oats in the United States on March 23 in nurseries in San Patricio and Bee Counties, TEXAS. In late March, traces [1 pustule per 15 row cm (5.9 row in)] in commercial field east of San Antonio, Gonzales County, Texas. More severe by early April in commercial field in Lavaca County and in nursery in Lee County, Texas. By early May, stem rust spread northward into central Texas counties of McCulloch and Coryell. Only other stem rust observed in southeastern U.S. in nursery at Baton Rouge, LOUISIANA. At this time in 1977, stem rust more severe but had progressed no farther northward. Last September, stem rust common but light on oats in Mexico City and El Bajio areas of MEXICO. Race 31 most common but races 61, 1, and 18 also present. (Roelfs, Long).

WHEAT STEM RUST (P. graminis f.sp. tritici) overwintered in Baton Rouge, LOUISIANA, nursery. Nursery planted in early October, and cold winter temperatures evidently did not eliminate the disease. Although similar plots located throughout the South, this is the only location currently known where stem rust overwintered in United States. On April 21, first stem rust collections of 1978 in McNair 701 trap plots in Uvalde and Beeville, TEXAS, nurseries. (Erickson). Stem rust occurred naturally in Yaqui Valley of Sonora, MEXICO, and isolates identified as races 17-HDB, 17-HNL, and 151-QFB. None of these races thought to pose threat to U.S. wheat crop. Last fall severe stem rust existed in El Bajio area north of Mexico City in nurseries and seed increase fields. Principal race identified from collections in this area was 151-QSH; many other unusual races also found. Race QSH more hazardous than previously mentioned races. (Roelfs, Long).

### INSECTS

CEREAL LEAF BEETLE (Oulema melanopus) - INDIANA - Harrison County--eggs averaged 8 per 0.3 m (ft) in wheat field compared with about 3 eggs seven days ago. First instar larvae averaged 1 per 0.9 m (yd). (Meyer). MICHIGAN - Berrien County--adult damage and eggs heavy in selected wheat and oat fields in Buchanan Township, 3 eggs per stem common on oat seedlings (2 to 3-leaf stage). Eggs 97 per 0.6 row m (2 row ft) in nearby wheat field. Up to 76 eggs on 1 plant and its associated tillers. No larvae seen. Wheat fully tillered and about 20 cm (8 in) tall. (Webster). TENNESSEE - Surveys in small grains by county: Clay--larvae very light in 3 fields (Gregory); Hancock, Hawkins, and Sullivan--negative (VanLandingham, Quillen).

KENTUCKY - Cereal leaf beetle egg averages per 0.09 sq m (sq ft) of oats by county: Bourbon--1-1.5 in 3 fields May 10 and Lewis--0-2.1 in 9 fields. No larvae. (Conn). WEST VIRGINIA - Mason County--eggs fewer than 1 per 0.09 sq m of wheat, adults 3 per 25 sweeps. Adults mating in oats; eggs averaged 8.8 per 0.09 sq m in oats 15 cm (6 in) tall. No larvae on oats, wheat, or grasses. (Hacker). PENNSYLVANIA - Adults per 100 sweeps by county: Dauphin--5 on wheat at Dauphin, April 27 (Stimmel); Lebanon--1 on barley in Swatara Township, May 3, 1 egg found in 5.7-ha (14-acre) field. (Maxwell).



GRASSHOPPERS - IDAHO - Teapot Basin area north of Mountain Home, Elmore County; Sinker Creek south of Murphy, Owyhee County; north of Eagle, Ada County; Robie Creek Drainage, Boise County; Star Lake, Lincoln County; and Brays Lake, Gooding County--newly emerged on May 5, grasshoppers will not survive cold and snow if no shelter found. (Pollard).

GYPSY MOTH (Lymantria dispar) - PENNSYLVANIA - Hatch by county May 4: Schuylkill--light at Pine Grove; Perry--light in Rye Township (about 400 egg masses per 0.4 ha (acre) and northeast Madison Township. (Kline et al.).

MORMON CRICKET (Anabrus simplex) - IDAHO - Elmore and Owyhee Counties--2nd, 3rd, and 4th instars in Teapot Basin area north of Mountain Home and Sinker Creek south of Murphy, May 5. (Pollard).

SCREW WORM (Cochliomyia hominivorax) - Total of 32 cases reported from continental United States April 16-22 as follows: New Mexico 2, Arizona 29, California 1. (Meadows). Total of 24 cases confirmed in portion of Barrier Zone in Republic of Mexico. Total of 706 cases reported in Mexico south of Barrier Zone. (Williams, Smith). Number of sterile flies released this period totaled 62,337,400 as follows: Texas 27,700,800, New Mexico 2,520,000, Arizona 30,307,600, California 1,809,000. (Meadows). Total of 183,059,000 sterile flies released within Barrier of Mexico. (Williams, Smith).

WHITEFRINGED BEETLES (Graphognathus spp.) - MISSISSIPPI - Covington County--combined effect from feeding by this species and SOUTHERN CORN ROOTWORM (Diabrotica undecimpunctata howardi) caused concern in commercial watermelon planting. Stand reduction may necessitate replanting. (Cochran).

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#### HAWAII PEST REPORT

General Vegetables - TOMATO PINWORM (Keiferia lycopersicella) moderate on 0.61 ha (1.5 acres) of tomatoes past peak harvest at Wailua Homestead, Kauai; 50% foliage affected, damage heavy on older leaves. (Nakao, Sugawa).

Snail Pests - GIANT AFRICAN SNAIL (Achatina fulica) activity remained minimal on Kauai during April 1978 due to continued dry weather in project areas. (Sugawa). State eradication of BROWN GARDEN SNAIL (Helix aspersa) at Waimea, Hawaii Island, downgraded to containment position. Efforts will be made to restrict populations at low levels and minimize dispersal. During April, total of 5 snails 11-33 mm (0.43-1.3 in) in size collected from 2 of 4 infestation sites at Waimea. (Hanaoka et al.).

Beneficial Organisms - LANTANA DEFOLIATOR CATERPILLAR (Hypena strigata) defoliated 80-95% of lantana plants at Puuanahulu (Kona), Hawaii Island. A TINGID BUG (Leptobyrsa decora) recovered for first time on east Hawaii Island on lantana at Hilo on April 28, 1978. First released on Hawaii in 1971 and first recovered from west Hawaii in May 1977. (Yoshioka). Predation by a CHAMAEMYIID FLY (Leucopis obscura) heavy on EURASIAN PINE APHID (Pineus pini) on 12 pine trees in Haleakala National Park and 6 trees in backyard at Kula, Maui Island. (Miyahira).

## DETECTION

### NEW STATE RECORD

#### INSECTS

A WEEVIL (Hexarthrum ulkei) - ILLINOIS - Cook. (p. 206).

### NEW COUNTY RECORDS

#### INSECTS

ALFALFA WEEVIL (Hypera postica) - FLORIDA - Jefferson. (p. 202).

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - NEVADA - Elko; OKLAHOMA - Ellis. (p. 203).

A DIASPIDID SCALE (Abgrallaspis howardi) - FLORIDA - Franklin. (p. 205).

A DIASPIDID SCALE (Abgrallaspis townsendi) - FLORIDA - Franklin. (p. 205).

A DIASPIDID SCALE (Acutaspis perseae) - FLORIDA - Duval. (p. 206).

A DIASPIDID SCALE (Aulacaspis rosae) - FLORIDA - Osceola. (p. 205).

A DIASPIDID SCALE (Comstockiella sabalis) - FLORIDA - Hardee. (p. 205).

A DIASPIDID SCALE (Diaspidiotus coniferarum) - FLORIDA - Franklin. (p. 206).

A DIASPIDID SCALE (Odonaspis penicillata) - FLORIDA - Osceola. (p. 205).

A DIASPIDID SCALE (Velataspis dentata) - FLORIDA - Leon. (p. 205).

HOLLYHOCK WEEVIL (Apion longirostre) - OKLAHOMA - Lincoln. (p. 205).

## LIGHT TRAP COLLECTIONS

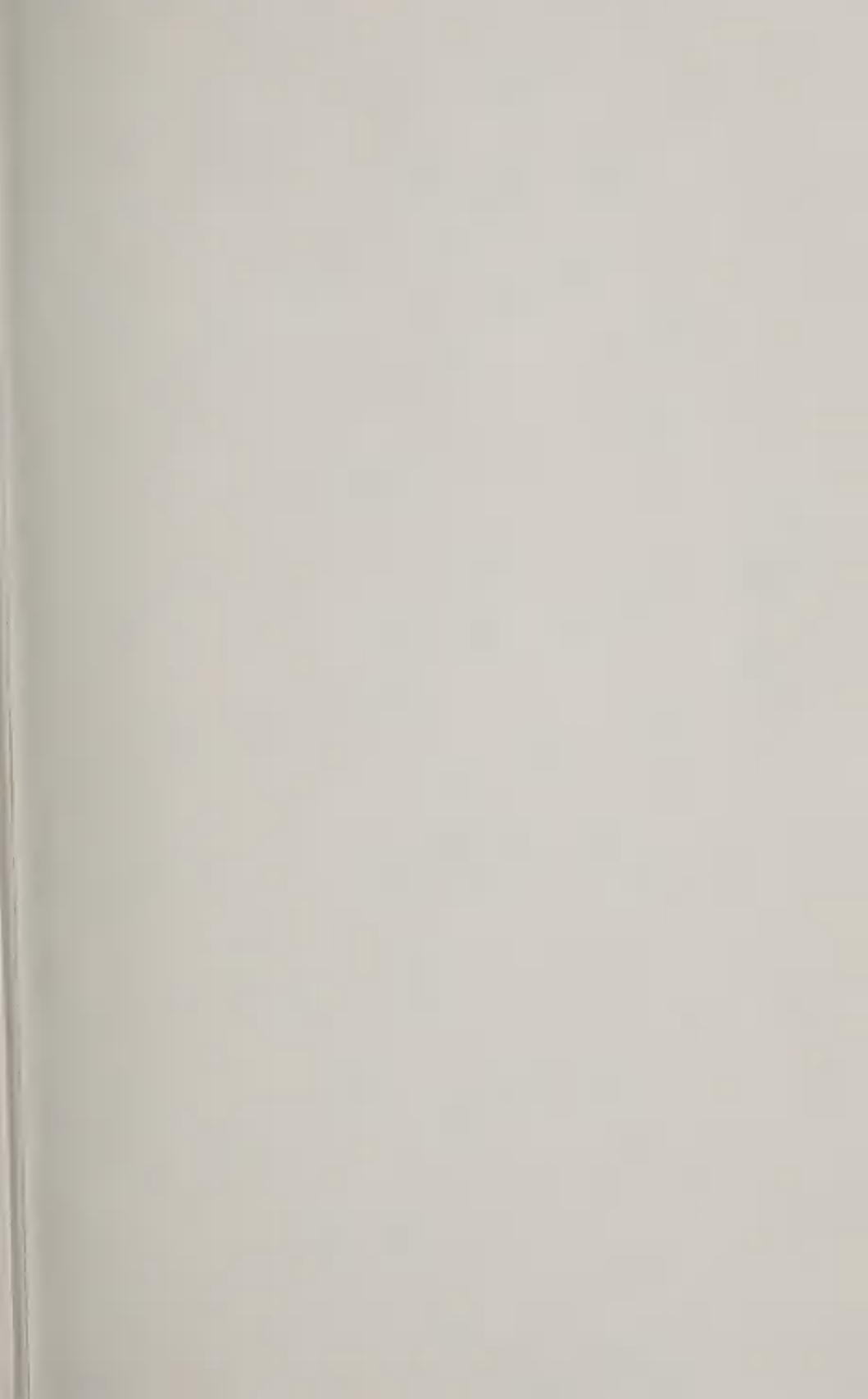
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# Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff  
Plant Protection and Quarantine Programs, USDA

	Life Stage	Host	Probable Origin	Port of Entry	Destination
<u>Guignardia citricarpa</u> Kiely citrus black spot Det. H. Wong	imperfect	on <u>sweet oranges</u> from baggage	Republic of China	San Francisco	CA
<u>Puccinia horiana</u> P. Henn white chrysanthemum rust Det. S.N. Kunisaki	telial	on <u>Chrysanthemum</u> from baggage	Japan	Honolulu	HI
<u>Xanthomonas citri</u> (Hasse) Dows. citrus canker Det. M. Harris	bacterial	on <u>Citrus fruit</u> from baggage	Hong Kong	Seattle	NY
<u>Anthonus</u> sp. a weevil Det. D.R. Whitehead	adult	with <u>Bromeliad</u> plants from cargo	Ecuador	Los Angeles	CA
<u>Cryptoblabes gnidiella</u> (Milliere) a pyralid moth Det. D.M. Weisman	larval	in <u>Citrus fruit</u> from baggage	Spain	San Juan	PR
<u>Liogenys macropelma</u> Bates a scarab Det. V.L. Blackburn	adult	with aircraft	Panama	McGuire AFB	NJ
<u>Premnotrypes</u> sp. a weevil Det. E.J. Ford, Jr.	larval	in potatoes from baggage	Peru	Dulles	VA
<u>Rhynchaenus fagi</u> (Linnaeus) a weevil Det. E.J. Ford, Jr.	adult	with aircraft	West Germany	Dover	DE











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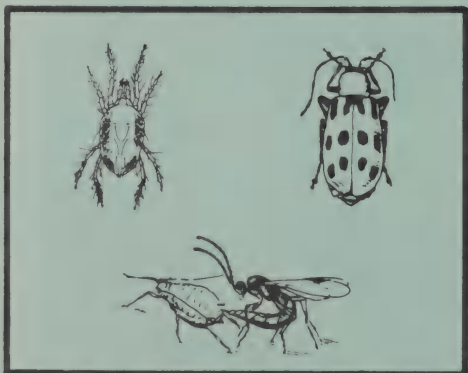
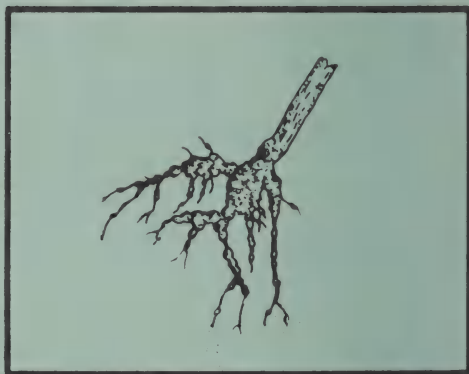
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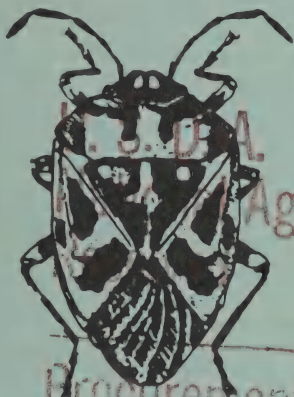
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# Cooperative PLANT PEST REPORT

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This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

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*Correspondence should be directed to:*

*CPPR*

New Pest Detection and Survey Staff  
Plant Protection and Quarantine Programs  
Animal and Plant Health Inspection Service  
U.S. Department of Agriculture  
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## COOPERATIVE PLANT PEST REPORT

### HIGHLIGHTS

#### Current Conditions

CORN EARWORM, FALL ARMYWORM, and BEET ARMYWORM infestations of sweet corn near 5% in part of northern Florida. (p. 215).

WESTERN CORN ROOTWORM problem in corn in part of southern Texas. (p. 215).

GREENBUG heavy on wheat in parts of Kansas (p. 217) and serious on seedling sorghum in southeastern area (p. 216).

WHEAT STREAK MOSAIC VIRUS of most concern in wheat in Kansas. (p. 217).

ALFALFA WEEVIL hot spot in east-central Kansas, larvae up to 11 per stem in south-central Missouri, and heaviest in past several years in south-central and southwestern Wisconsin. (p. 219-220).

#### Detection

A new DIASPIDID SCALE for Puerto Rico. (p. 218).

For new county records see page 228.

Reports in this issue are for the week ending May 19 unless otherwise indicated.

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## CORN, SORGHUM, SUGARCANE

### INSECTS

EUROPEAN CORN BORER (Ostrinia nubilalis) - NEBRASKA - Pierce, Knox, Antelope, Cedar, and Dixon Counties--survival 60% in 25 sites, overall average of 2.58 borers per 0.8 sq m (sq yd). Pupation underway but still less than 5%. (Witkowski). IOWA - Story County--larvae 0-3 (averaged 1.4) per 0.8 sq m in cornstalks in oat field. Larvae equal to 6,776 per 0.4 ha (acre), slightly heavier than 1972 spring population. About 40% of larvae dead due to disease. (DeWitt).

MINNESOTA - Hennepin and Dakota Counties--overwintered European corn borer 5th instar larvae and pupae 1:1 in cornstalks in 5 fields. (Sreenivasam). WISCONSIN - Pupation begun. Adults expected in 7-14 days, depending on location. (Lovett).

INDIANA - European corn borer pupation in field of upright cornstalks by county (10 borers per county): Harrison--4 (1 dead) by May 16 and Jackson--1 by May 17. (Meyer). DELAWARE - Sussex County--pupation of overwintered borers averaged about 65%. Several adults, mostly males, collected in black-light traps. (Burbutis, Kelsey).

BLACK CUTWORM (Agrotis ipsilon) - NEBRASKA - Clay and Lancaster Counties--first adults of season May 11-12. (Peters, Roselle). KANSAS - Riley, Montgomery, Labette Counties--first larvae of season, 1-1.9 cm (0.5-0.75 in) long, trace on corn 5-18 cm (2-7 in) tall week of May 12. (Bell, White). MISSOURI - Southeastern area--larvae, 3rd and 4th instar, on corn, damage less than 1%. Vernon County--24-ha (60-acre) corn field replanted due to damage. (Munson).

NORTH CAROLINA - Piedmont area--cold, wet conditions (poor growing conditions) for corn contributed to black cutworm damage. Damage spotty and most common in minimum-till plantings. Cut plants averaged less than 5% in 5 fields; three 2-ha (5-acre) fields replanted. (Hunt).

CORN EARWORM (Heliothis zea) - FLORIDA - Alachua County--this species, FALL ARMYWORM (Spodoptera frugiperda), and BEET ARMYWORM (S. exigua), in order of importance, infested 203-ha (500-acre) field of untreated sweet corn at Alachua. Infestation of 8.1-ha (20-acre) units ranged 0-4.8% in corn (very young to tassel stages). Usually treated when infestation 5% or more. (Baker). TEXAS - Kleberg, Nueces, San Patricio, and Bee Counties--corn earworm up to 1 in whorls per 3 corn plants May 12. (Parker, Rothrock).

MAIZE BILLBUG (Sphenophorus maidis) - NORTH CAROLINA - Harnett, northern Sampson, and western Johnston Counties--this species and a BILLBUG (S. callosus) continued to expand range westward as indicated by observations in 5 randomly selected corn fields week of May 12. Damage noneconomic but adults and scattered damaged plants noted. Wayne, Wilson, Robeson, Columbus, and Bladen Counties--still heavy in nonrotated, untreated fields. (Hunt, Jackson).

SUGARCANE BEETLE (Euetheola rugiceps) - SOUTH CAROLINA - Colleton County--infestation and damage heavy on about 4.1 ha (10 acres) of corn, more than 80% of field replanted. (Yates, Griffin).

CORN ROOTWORMS (Diabrotica spp.) - TEXAS - Medina County--20+ WESTERN CORN ROOTWORM (D. virgifera) per corn plant at Castroville, Rio Medina, and Hondo, May 12. (Stewart). MISSISSIPPI - Winston and Noxubee Counties--SOUTHERN CORN ROOTWORM (D. undecimpunctata howardi) larvae light in seedling sweet corn. (Anderson).



GREENBUG (Schizaphis graminum) - TEXAS - Blacklands and central areas--greatly decreased on sorghum. (Jackman). ARKANSAS - Clay County--light in grain sorghum fields. (Kimbrough). KANSAS - Status by counties: South-eastern--serious on seedling sorghum but emerging sorghum generally very scarce; Labette--destroyed 1 field of 2 to 3-leaf stage sorghum (Kilgore); Shawnee--averaged 0.4 per plant on emerging sorghum (Hilbert).

SORGHUM MIDGE (Contarinia sorghicola) - TEXAS - Cameron County--1 per 10 sorghum heads at Brownsville, May 12. (Cocke et al.).

## SMALL GRAINS

### DISEASES

WHEAT LEAF RUST (Puccinia recondita f.sp. tritici) - KANSAS - Southern area--continued to buildup slowly. Losses will probably be low; few moderately infected fields with leaf rust pustules on flag leaves. Prevalence/severity by county: Stanton--5%/trace %, Kiowa--70-100%/2%, Kingman--1-10%/trace to 5%, Pratt--25%/trace to 5%, Sumner--trace to 90%/trace to 10%, Sedgwick--trace to 40%/trace to 30%, Stafford--40-50%/trace to 5%, Butler--trace %/trace %, Cowley--trace to 1%/trace %, Barton--trace%/trace%, and Rice--trace to 60%/trace to 5%. Barber and Harper Counties--moderate flag leaf infections. (Sim).

WHEAT POWDERY MILDEW (Erysiphe graminis f.sp. tritici) - KANSAS - Eastern two-thirds area--moderate to heavy in dense wheat fields. Geary, Dickinson, Ottawa, Ellsworth, Rice, McPherson, Harper, Sedgwick, Reno, Sumner, Kiowa, and Chase Counties--prevalence trace to 100%. (Sim). MISSOURI - Lawrence County--prevalence 100%/severity trace to 5% on headed wheat in 4-5 commercial fields May 9-11. (Foudin). MICHIGAN - Southern counties--1 of 2 diseases prevalent on wheat this spring. (Hart).

LOOSE SMUT (Ustilago nuda) - KANSAS - Montgomery, Sumner, and Stafford Counties--trace on wheat. (Sim). MISSOURI - Lawrence County--prevalence trace to 1% on headed barley. (Foudin).

EYESPOT (Pyrenophora trichostoma) - KANSAS - Eastern one-half area--most common in wheat fields with stubble from 1977 still on surface of ground. Prevalence by county: Allen--10%, Crawford--100%, Cherokee--100%, Labette--trace %, Coffey--100%, Chase--80-100%, Butler--80%, Sumner--80-100%, Sedgwick--100%, Kingman--100%, Kiowa--trace %, and Wabaunsee--70%. (Sim).

CEPHALOSPORIUM STRIPE (Cephalosporium gramineum) - KANSAS - Areas of continuous wheat through central area--severities light to severe; counties most affected--McPherson, Rice, Marion, Saline, Reno, Harvey, Sedgwick, and Sumner. McPherson County--1 field plowed under due to severe infections of this disease and WHEAT STREAK MOSAIC VIRUS. (Sim).

SPECKLED LEAF BLOTCH (Septoria tritici) - KANSAS - Most areas--obvious on wheat. Allen, Labette, Butler, Ellsworth, Rice, and Sedgwick Counties--prevalence 10-100%. (Sim).

TAKE-ALL (Gaeumannomyces graminis var. tritici) - KANSAS - First of season. Neosho, Crawford, Cherokee, Montgomery, and Labette Counties--early stages on wheat. (Sim).

RHYNCHOSPORIUM SCALD (Rhynchosporium secalis) - CALIFORNIA - Fresno County--prevalence of this disease and a NET BLOTCH (Helminthosporium sp.) 100% in 97.2 ha (240 acres) of barley at Five Points. (Marcraft).

WHEAT STREAK MOSAIC VIRUS - KANSAS - Most concern at this time. South-central and central districts--most obvious; Pratt, Comanche, and McPherson Counties--severely infected. Morton, Clark, Sumner, Kingman, Lincoln, Marion, and Dickinson Counties--less infection. Prevalence/severity in wheat (late boot to bloom) by county: Stafford--70-90%/moderate, Pratt--10-100%/moderate to severe, Comanche--100%/severe, Kiowa--10%/light, Rice--60-90%/moderate, Barton--10-80%/moderate, Haskell--trace %/-, and Wichita 10%/light. (Sim).

BARLEY YELLOW DWARF LUTEOVIRUS - MISSOURI - Lawrence County--prevalence trace to 2% on headed wheat and trace to 0.5% on headed barley in 4-5 commercial fields each, May 9-11. (Foudin).

WHEAT SPINDLE STREAK MOSAIC VIRUS - MICHIGAN - Southern counties--1 of 2 diseases prevalent on wheat this spring. Spindle streaks on flag leaves due to cool spring. (Hart).

## INSECTS

ARMY CUTWORM (*Euxoa auxiliaris*) - MONTANA - Richland and McCone Counties--damaged large acreages of winter wheat by week of May 12. (Williams et al.). Currently northeast of Sidney, Richland County, to Circle, McCone County--damage minimal, larvae about 3.8 cm (1.25 in) long, nearly ready to pupate. (Bain).

ARMYWORM (*Pseudaletia unipuncta*) - ARKANSAS - Northeastern area--very light in wheat fields. (Kimbrough). KANSAS - Sumner County--first larvae of season [0.64 cm (0.25 in) long] trace in headed wheat field week of May 12 (Salsbury); none in other fields (Bell). ILLINOIS - Southern area--light, 5-10 per sweep of grassy wheat. (Black).

PALE WESTERN CUTWORM (*Agrotis orthogonia*) - KANSAS - Significant infestations between Leoti, Wichita County, and Lakin, Kearny County, west to State border--still cutting tillers in some wheat fields. Hamilton County--averaged up to 2.7 (ranged up to 7) per 0.3 row m (row ft) of heading wheat. (Shuman). Hamilton and Greeley Counties--larvae averaged 3.2 (ranged up to 7) per 0.09 sq m (sq ft) in several fields; 0.09 sq m usually equal to 0.3 row m in this area. Some pupation. (DePew).

RICE WATER WEEVIL (*Lissorhoptrus oryzophilus*) - ARKANSAS - Poinsett County--feeding scars on seedling rice. (Kimbrough).

GREENBUG (*Schizaphis graminum*) - KANSAS - Increased on wheat week of May 12, infestations verified in all except west-central and northwest districts. Heaviest in Cowley and Sumner Counties with 300 per 0.3 row m (row ft) in headed wheat. (Bell). Number of fields surveyed in wheat [30-64 cm (12-25 in)] or boot through head] and averages per 0.3 row m by county May 8-18: Kiowa 2, 1-15; Pratt--1, 12; Kingman--1, 32; Reno--1, 57; McPherson--1, 53; Marion--3, 4-12; Harvey--5, 11-87; Butler--3, 3-140; Sedgwick--3, 58-73; Cowley--2, 24-300; Sumner--3, 78-300; Harper--1, 69; Haskell--1, 2; Seward--1, 3; Marshall--1, 14; Washington--2, 27-85; Republic 3, 7-36; Jewell--2, 4-10; Smith--2, 5-56; Osborne--3, 10-55; Russell--2, 18-30; Lincoln--2, 8-48; Ottawa--1, 55; Lyon--1, 4; Coffey--2, 5-15; Montgomery--1, 30; Elk--2, 59-84; Douglas--2, trace to 3; Franklin--2, trace; Riley--2, 10-50; Pottawatomie--1, 45. (Salsbury et al.). Currently on wheat: Cloud and surrounding counties--heavy in some fields (Bonczkowski); Republic--averaged up to 400 per 0.3 row m (row ft) in 30-cm (12-in) wheat (Bell); south-central--light or decreased in some areas, parasitism 100% in 1 Comanche County field (Salsbury).

MISSOURI - Greenbugs in south-central area--mostly this aphid species light, 0-4 per 0.3 row m in 5 wheat fields. (Munson). NEBRASKA - Lancaster, Gage, and Johnson Counties--6-402 greenbugs (averaged 96.25) per 100 sweeps in 7 of 8 wheat fields compared with 3-31 (averaged 14.6) per 100 sweeps in these fields May 2. Two highest field averages of 402 and 184 per 100 sweeps; wheat showed reddened feeding spots on leaves, no damage in other 6 fields. Extended leaf height 36-61 cm [14-24 in (averaged 51.44 cm (20.25 in))]. Johnson County--first greenbug parasitized by Lysiphlebus testaceipes (an aphidiid wasp). (Miller). Clay, Fillmore, and Thayer Counties--averaged less than 1 per sweep in 6 wheat fields. (Peters).

CHINCH BUG (Blissus leucopterus leucopterus) - KANSAS - Adults per 0.3 row m (row ft) of wheat by county week of May 12: Marion--up to 100 along field border in 1 field. Marshall--averaged 42 for field, and Washington--averaged 60 for field. (Salsbury, Hilbert). Riley--eggs but no nymphs common in 1 wheat field (boot). (Bell). Number of fields surveyed in wheat [30-64 cm (12-25 in) tall or boot through head] and averages per 0.3 row m by county May 8-18: Kiowa 2, 0; Pratt--1, 0; Kingman 1, 0; McPherson 1, 0; Marion--3, 0-100 along field border; Harvey--5, 0-17; Butler--3, 0-3; Sedgwick--3, 0-1.5; Cowley--2, 0; Sumner--3, 0; Harper--1, 0; Haskell--1, 0; Seward--1, 0; Marshall--1, 42; Washington--2, 1-60; Republic--3, 0-1; Jewell--2, 0; Smith--2, 0; Osborne--3, 0; Russell--2, 0; Lincoln--2, 0; Ottawa--1, 0.6; Lyon--1, 5; Coffey--2, trace to 1; Montgomery--1, 0; Elk--2, 0; Douglas 2, 0 to trace; Franklin--2, 0-3; Riley--2, 0.3-2; Pottawatomie--1, 0. (Salsbury et al.).

ASTER LEAFHOPPER (Macrosteles fascifrons) - NORTH DAKOTA - McKenzie and Williams Counties--adults 2 per 100 sweeps in winter wheat. (Brandvik). MINNESOTA - Dakota, Hennepin, and Ramsey Counties (5 fields each)--averaged 60 per 100 sweeps of wheat (tillering) in 15 fields. (Sreenivasam). WISCONSIN - From Madison, Dane County, west to Mississippi River and north from Brodhead, Green County, to Hancock, Waushara County--first migrants averaged 4 per 100 sweeps of oats and winter grains. Migration practically over for season. (Lovett).

AN APHID (Rhopalosiphum padi) - KANSAS - Averages per 0.3 row m (row ft) of wheat, (boot to bloom) by county (1-3 fields each): Allen--23, Crawford--2, Cherokee--trace, Labette--0, Coffey--12, Wabaunsee--2-3, Morris--20, Pratt--5, Kiowa--trace to 2, Kingman--trace, Comanche--5, Stafford--trace, Wichita--0-25, Greeley--0, Hamilton--0, Stanton--0 to trace, Geary--20-75, Dickinson--145, and Republic 20-50. (White et al.).

ENGLISH GRAIN APHID (Macrosiphum avenae) - OHIO - South-central and southwestern districts--light, 0.5 per sweep of alfalfa. (Drees). WISCONSIN - First migrants of season. Rock County and Central Sands area--winged aphids averaged 4 per 100 sweeps of winter grains May 16. (Lovett).

## **TURF, PASTURES, RANGELAND**

### INSECTS

A SCARAB (Ataenius spretulus) - OHIO - Hamilton and Clermont Counties--adults about 20 per 0.09 sq m (sq ft) of cultivated turf grass in golf courses. (Wegner).

A DIASPIDIID SCALE (Odonaspis ruthae) - PUERTO RICO - New record. Collected from undetermined grass species at Rio Piedras, March 4, 1978, by C.E. Miller. Determined by S. Nakahara. Known from continental United States. (C.E. Miller).



## FORAGE LEGUMES

### DISEASES

SPRING BLACK STEM (*Phoma medicaginis*) - KANSAS - Status on alfalfa by area: Eastern two-thirds--most severe, defoliation occurred, cutting underway; western one-third--no defoliation. Prevalence by county: Rice--100%, Stafford--100%, Kingman--100%, Haskell--1%, Seward--1%, Bourbon--100%, Douglas--100%, Franklin--100%, and Wabaunsee--70%. Also on second cutting in 1 field in Bourbon County. (Sim).

LEPTOSPHERULINA LEAF SPOT (*Leptosphaerulina briosiana*) - KANSAS - Statewide--still obvious on first growth of alfalfa and appeared on second growth in 1 field in Bourbon County. (Sim).

### INSECTS

ALFALFA WEEVIL (*Hypera postica*) - UTAH - Cache County--cool weather through May 11 retarded weevil development. Up to 100 (averaged 38) per 100 sweeps in Hyde Park area. Larvae 40% 1st instar with some 4th instars on alfalfa stems about 36-cm (14 in) long in North Logan, Hyde Park area. Ranged 1-32 per 100 sweeps farther north. (Davis, Ronnenkamp).

NEW MEXICO - Alfalfa weevil per 25 sweeps of alfalfa by county: Lea--adults averaged 13 and larvae 3 on first growth alfalfa south of Lovington, scattered populations, mostly adults 0 or fewer than 1 north of Lovington; Eddy--adults 3-18 and larvae 0-6 in Carlsbad and Loving areas in 12 fields (Nielsen); Chaves--adults averaged 3 west of Roswell, and adults ranged 2-8 and larvae 1-5 north and east of Roswell (Riddle); Torrance--larvae 15 near McIntosh in 1 field (Heninger). TEXAS - Percent terminal damage by alfalfa weevil in alfalfa by county May 11: Lipscomb--100% in some fields at Follett; Collingsworth--30% in some fields; and Dallam and Hartley--under 10%. (Patrick).

KANSAS - Southeastern area--several alfalfa fields cut and 1 as far north and west as Riley County. Damaging alfalfa weevil infestations still mostly restricted to southeastern area and south-central border counties; significant numbers in 1 field in Finney County. (Bell). Alfalfa stems 25-56 cm (10-22 in) long. Percent damaged stems/larval averages per stem (predominant larval instar) by county May 8-9: Allen--76%/0.8 (4th), Elk--96%/1.7 (4th), Montgomery--100%/2.8 (4th), Cherokee--76%/1.0 (3rd), Lyon--40%/0.2 (2nd), Reno--44%/0.1 (1st), Kingman--16%/0.3 (1st, 2nd), Haskell--0%/trace (3rd), Seward--0%/0, Gray--28%/0.4 (2nd), and Finney--100%/1.2 (1st). (White et al.). Currently, treating minimal in most affected areas. Douglas County--larvae 103 per sweep, unusually heavy, in 1 field of budstage alfalfa; damage heavy. Status by area: Southeastern and east-central--first growth removed in many fields, southwestern and north-central--small amounts of cutting, and eastern and southern--pupation well underway. (Bell).

NORTH DAKOTA - McKenzie and Williams Counties--alfalfa weevil adults 3-40 per 100 sweeps of 10 to 25-cm (4 to 10-in) irrigated alfalfa. Mating but no larvae. (Brandvik).

NEBRASKA - Alfalfa weevil larvae and adults per 100 sweeps and tip feeding on alfalfa by county: Otoe--larvae 0-2 (averaged 0.2) and adults 0-2 (averaged 0.1) no tip feeding in 23 fields (Stevens); Dawson--larvae 0-65 (averaged 5.8) and adults 0-10 (averaged 1.2), less than 1% in 24 fields (Manglitz); Lancaster, Gage, and Johnson--larvae 0-4 (averaged 1.4), no adults or tip feeding in 7 fields of alfalfa 25-64 cm [10-25 in (averaged 40.28 cm (15.86 in))] tall (Miller); Clay, Fillmore, and Thayer--0-7 (averaged 2.3), no adults or tip feeding in 3 fields. (Peters).

TENNESSEE - Madison County--alfalfa weevil below control levels in cut alfalfa field. (Patrick). Total ha (acres) of forage legumes surveyed, ha (acres) requiring controls, and ha (acres) treated by county week ending May 12: Cannon--32 (80), 32, 24 (60); Coffee--365 (900), 365, 243 (600); Grainger--10 (25), 10, 0; Grundy (revise CPPR 3(20):201)--344 (850), 101 (250), 64.8 (160); Hamilton--16 (40), 8.1 (20), 8.1; Hardin--20 (50), 16, 12 (30); Henderson--50.6 (125), 50.6, 16 (some cut early to prevent controls); Houston--81.0 (200), 81.0, about 30 (75); Johnson--101, 101, 0; Macon--101, 101, 81.0; Morgan--50.6, 30 (some cut early to prevent controls), 30; Pickett--40.5 (100), 40.5, 30; Union--60.9 (150), 40.5 (100), 30; and Williamson--607.5 (1,500), 405.0 (1,000), 203 (500). (Ivens et al.).

MISSOURI - South-central area--alfalfa weevil larvae (all sizes) ranged 3-11 per stem, light to moderate, on alfalfa; harvest began. (Munson). WISCONSIN - Rock and Green Counties--larval feeding evident in some alfalfa fields. South-central and southwestern areas--larvae in 1st and 2nd instars, 3-30 per 10 sweeps, heaviest of past several years. Larval damage probable in about 7-14 days. (Lovett).

MICHIGAN - Alfalfa weevil status on forage crops by county week of May 12: Ottawa, Saginaw, and Muskegon--adults active; Livingston, Ingham, Lapeer, and Macomb--adults and small larvae active; Kalamazoo--all stages present. Genesee and Van Buren Counties--currently, first larvae easily found on forage crops. (Ruppel).

ILLINOIS - South of State Highway 15--most alfalfa should have been cut to avoid alfalfa weevil damage. North of State Highway 15 to slightly north of U.S. Highway 50--fields averaged over 51 cm (20 in), many fields will soon need cutting to avoid damage. As far north as U.S. Highway 36--fields averaged about 43 cm (17 in) or more and should reach 10th bloom within 10 days, tip feeding, less than 5%, no damage to first cutting. (Black).

INDIANA - Alfalfa weevil status on alfalfa by district: Central--probably remain noneconomic due to light numbers and advanced alfalfa growth; southern--heavily infested fields intermixed with fields lightly infested, or lightly damaged but with heavy numbers of larvae. Eggs still heavy in stems especially in southern districts. Treatments applied as late as May 12, mostly because rain and corn planting precluded harvest. Number of untreated fields surveyed, mean % infested mean larvae and eggs per infested stem, and instar ratio of 1st+2nd: 3rd+4th by district: West-central--6, 25%, 1.2 and 0.05, 30:70, central--5, 50%, 1.3 and 0.46, 47:53; southwest--4, 86%, 2.4 and 0.95, 33:67; and south-central--9, 95%, 4.1 and 1.27, 39:61. Alfalfa 34.9-57.1 cm (13.8-22.5 in). (Meyer).

OHIO - Southern area--alfalfa weevil reached economic thresholds in some fields and spraying began May 10; since then, spraying limited by wet weather. (Blair). Butler County--some fields needed controls May 11. Sandusky County--larvae light, less than 1% of plants infested. (Flessel, Nelson). Scioto County--pupae by May 17. Larvae per sweep, adults per sweep, % tips infested, and egg masses per plant by county May 17-18: Scioto (2 counts)--8.1 and 3.9, 0.2 and 0, 70% and 80%, 0.1 and 0; and Brown--5.1, 0.6, -, 0; alfalfa 51-69 cm (20-27 in) tall. Southern area--current larvae 5.7 per sweep, much lighter than 14.7 weekly average in 1977. Many fields ready for first cutting. (Drees).

VIRGINIA - Forage ha (acres) sampled for alfalfa weevil, tips infested per 50 tips, % infestation, and % defoliation by county week ending May 12: Botetourt (2 fields)--4 (9) and 6.1 (15), 1 and 0, 2% and 0%, 2% and 2%; Culpeper--2 (5), 31, 62%, 8%. (Robertson, Heltzel). Infested 64% of tips; average estimated

defoliation 4%. Most alfalfa weevil larvae still too small, averaged 0.33 cm (0.13 in) long, to cause serious damage. One of fields (33%) and 5% of acreage exceeded economic threshold of infestation (foliage loss 20% or over). Culpeper County--tip infestation 77%, average estimated defoliation 22%, all fields exceeded economic threshold of infestation May 9 and 15. (Allen).

VARIEGATED CUTWORM (Peridroma saucia) - NEBRASKA - Lancaster County--first egg mass of season in alfalfa field. Johnson County--first larva of season on alfalfa. (Miller). INDIANA - First of season on alfalfa. Harrison County--1-cm (0.5-in) larva swept. (Meyer).

ARMY CUTWORM (Euxoa auxiliaris) - COLORADO - Moffat County--economic on alfalfa, some controls applied. (Martin).

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - OREGON - New county record. Josephine County--heavy, 300+ per sweep in 1 alfalfa field 4.7 km (2.9 miles) east of Grants Pass on May 12, 1978. Collected and determined by R.L. Penrose. Damaged areas evident throughout field, alates and nymphs present. (Penrose). ARIZONA - Pinal County--adults 38 per 100 sweeps of alfalfa. (Pilling et al.).

KANSAS - Ratios for blue alfalfa aphid to PEA APHID (A. pisum) in averages per stem on 25 stems by county week of May 12: Kingman--0.2:7.0; Sedgwick--0.4:6. (Salsbury). Ratios in averages per sweep: Osborne--5:25; Lincoln--6:40, Lyon--0:22, Coffey--trace; 5, Allen--0:38, Elk--7:453, Montgomery--6:118, Cherokee--1:103, and Franklin--0.3:2. (Hilbert, White). New county records from alfalfa. Nearest city, collection date, and collector which was also determiner, by county: Johnson--Stilwell, May 11, 1978, S.C. White; Jewell--Montrose, May 10, B.D. Hilbert; Smith--Smith Center, May 10, B.D. Hilbert; Lincoln--Sylvan Grove, May 11, B.D. Hilbert; Osborne--Osborne, May 11, B.D. Hilbert. (Bell).

PEA APHID (Acyrtosiphon pisum) - UTAH - Cache County--generally light, averaged 30 per 100 sweeps of forage legumes; 300 per 100 sweeps at Hyde Park. Predators heavy in most fields. (Davis). NEW MEXICO - Counts per 25 sweeps of alfalfa by county: Eddy, Chaves, and Lea--0-20, scattered very light in fields (Riddle, Nielsen); Torrance--adults and nymphs averaged 30 in fields in McIntosh area (Heninger).

NEBRASKA - Lancaster, Gage, and Johnson Counties--138-660 (averaged 361) pea aphids per 100 sweeps in 7 alfalfa fields; no damage. (Miller). MINNESOTA - Dakota, Hennepin, and Ramsey Counties (5 fields each)--trace on alfalfa 20-30 cm (8-12 in) tall in 15 fields. (Sreenivasam).

WISCONSIN - South-central and southwestern areas--still generally very light, first winged pea aphids on alfalfa in Crawford County, May 17. (Lovett). MICHIGAN - Lapeer and Macomb Counties--light on alfalfa week of May 12. (Ruppel). MISSISSIPPI - Pontotoc County--adults 55-500+ per 25 sweeps of vetch. (Anderson).

SPOTTED ALFALFA APHID (Therioaphis maculata) - ARIZONA - Pinal County--adults 59 per 100 sweeps of alfalfa. (Pilling et al.). NEBRASKA - Lancaster, Gage, and Johnson Counties--adults and nymphs 0-18 (averaged 5.4) per 100 sweeps in 7 alfalfa fields. (Miller). NORTH DAKOTA - Williams and McKenzie Counties--wingless females and nymphs 100 per 100 sweeps in 10-cm (4-in) alfalfa. (Brandvik).

POTATO LEAFHOPPER (Empoasca fabae) - MISSOURI - Howell County--first of season. Adults on alfalfa. (Munson). WISCONSIN - First migrant of season. Iowa County--adult swept from alfalfa May 17. Negative in other fields. (Lovett). OHIO - Scioto County--first of season 0.3 per sweep of alfalfa 69 cm (27 in) tall. (Drees).



MEADOW SPITTLEBUG (Philaenus spumarius) - MISSOURI - North-central area--heavily infested 50% of red clover plants. (Huggans). WISCONSIN - Southcentral and southwestern areas--nymphs averaged less than 1 per 10 alfalfa stems. Spittlemasses noticeable. (Lovett). OHIO - Southern area--nymphs in some fields. Scioto County--adults averaged 4 per 0.09 sq m (sq ft) in 1 forage legume field. (Drees).

ALFALFA PLANT BUG (Adelphocoris lineolatus) - MINNESOTA - First 1st instar of season. Dakota, Hennepin, and Ramsey Counties (5 fields each)--1st instar nymphs averaged 40 per 100 sweeps of alfalfa 20-30 cm (8-12 in) tall in 15 fields. (Sreenivasam).

TARNISHED PLANT BUG (Lygus lineolaris) - MINNESOTA - Dakota, Hennepin, and Ramsey Counties (5 fields each)--adults 50-100 per 100 sweeps of alfalfa 20-30 cm (8-12 in) tall in 15 fields. (Sreenivasam).

## SOYBEANS

### INSECTS

VELVETBEAN CATERILLAR (Anticarsia gemmatilis) - MISSISSIPPI - Pearl River County--adults 8 in light trap at Polarville, April 21-27. Problem in 1977 on soybeans statewide. (Anderson).

BEAN LEAF BEETLE (Cerotoma trifurcata) - ILLINOIS - Mason County--adults of this soybean pest 1 per sweep in 1 alfalfa field, 5-15 per 100 sweeps more common. (Black). OHIO - Hamilton and Butler Counties--first active adults on alfalfa May 11-12. (Flessel, Nelson).

MEXICAN BEAN BEETLE (Epilachna varivestis) - INDIANA - First adult of season. Jackson County--this soybean pest swept from alfalfa May 17. (Meyer).

## PEANUTS

### INSECTS

CORN EARWORM (Heliothis zea) - FLORIDA - Jackson County--1st instar larvae began to appear on peanuts 5 cm (2 in) tall near Marianna. (Tappan).

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - FLORIDA - Levy County--all larval instars infested 50% of peanuts in 16-ha (40-acre) field 3 km (2 miles) northwest of Williston. Peanuts 14-42 days old. Problems on this farm every spring. (Baker).

TOBACCO THRIPS (Frankliniella fusca) - FLORIDA - Jackson County--averaged 1-2 per bud on peanuts 5 cm (2 in) tall (17 days after planting) near Marianna. Population at same level as in 1977 when peanuts at same growth stage. (Tappan).

## COTTON

### INSECTS

BOLL WEEVIL (Anthonomus grandis) - TEXAS - Punctured squares per 100 cotton plants by county: Cameron--0-20, Kleberg--0-9, Nueces--0-4, and San Patricio--0-40. Adults trapped per week by May 9-12: Ellis and Navarro--61 in 36 traps, Ellis--39 in 12 traps at Reagor Springs, Collin and Hunt--1 in 3 traps, Tom Green--0 south of Vancourt and 4 per trap east of Veribest, Runnels--2 northwest of Winters and 0 west of Wingate per trap. (Moore et al.).



ARKANSAS - Lafayette County--boll weevils heavier than in rest of State; number of grandlure traps and total overwintered adults (average per trap) at 3 sites May 5-15: 4, 127 (32); 5, 26 (5); and 1, 0 (0). (Mayse).

BOLLWORMS (Heliothis spp.) - ARIZONA - BOLLWORM (H. zea) larvae per cotton plant by county: Yuma--1, Gila--2. (Davis et al.). TEXAS - H. zea and TOBACCO BUDWORM (H. virescens) eggs, larvae, and damaged squares per 100 plants by county May 12: Cameron--0-20, 0-15, 0-23; Hidalgo--near 0 in most fields (up to 15 eggs), 1-20, 1-15; Willacy--under 5, 0-10, 0-10; Kleberg--0-1, 0-6, 0-19; Nueces--0-1, 0-4, 0-24; and San Patricio--0-2, 0-4, 0-35. Male:female ratio per trap per week by county May 12: Tom Green--2:4 west of Veribest and Runnels--2:3 east of Wingate. (Bohm-falk).

CABBAGE LOOPER (Trichoplusia ni) - CALIFORNIA - Fresno County--1st instar larvae of season on commercial cotton at Cantua Creek on May 11. (Dunnegan).

COTTON FLEAHOPPER (Pseudatomoscelis seriatus) - TEXAS - Counts per 100 cotton plants by county May 12: Cameron--0-25 at Rio Hondo, Hidalgo--0-15, Willacy--under 10, Kleberg--0-14, Nueces--0-10, San Patricio--0-6, Bell and Falls--up to 15 per row terminal. (Cocke et al.).

## **TOBACCO**

### INSECTS

TOBACCO BUDWORM (Heliothis virescens) - FLORIDA - Suwannee County--infested 89% of untreated tobacco at Live Oak by May 3 and damaged 85% of plants by May 17. Current larvae mostly late instars. Pupation expected to be prevalent May 21-27. (Tappan).

CABBAGE LOOPER (Trichoplusia ni) - FLORIDA - Suwannee County--heavy on some tobacco at Live Oak; 1 planting treated 4 times in 3 days by May 10. (Tappan).

## **SUGAR BEETS**

### INSECTS

SUGARBEET WIREWORM (Limonius californicus) - IDAHO - Canyon County--economic damage to sugarbeets east of Parma May 9-10. (Bishop, Baird).

## **MISCELLANEOUS PLANTS**

### INSECTS

REDBACKED CUTWORM (Euxoa ochrogaster) - OREGON - Jefferson County--larvae, generally late 3rd to 5th instar, 0-6 per 0.09 sq m (sq ft) of peppermint in Madras area. Some fields needed treatment. (Fisher).

STRAWBERRY ROOT WEEVIL (Otiorhynchus ovatus) - OREGON - Jefferson County--larvae very heavy in some peppermint fields, up to 40 per 0.09 sq m (sq ft) in parts of more heavily infested plantings. (Fisher).

## POTATOES, TOMATOES, PEPPERS

### INSECTS

COLORADO POTATO BEETLE (Leptinotarsa decemlineata) - SOUTH CAROLINA - Charleston County--infestation and damage light on about 40.5 ha (100 acres) of tomatoes. Beaufort County--spotty on about 20 ha (50 acres), some treatment needed. (Thompson, Queener).

TOMATO PINWORM (Keiferia lycopersicella) - CALIFORNIA - Fresno County--first fully grown larvae of season on residential tomato plantings at Clovis; some damage to leaves. (Dunnegan).

## GENERAL VEGETABLES

### DISEASES

PINK ROOT (Pyrenochaeta terrestris) - CALIFORNIA - Imperial County--infection 10-85% in 7 plantings of seed onions totaling 66.4 ha (164 acres) at El Centro. (Byrd, Hasbrouck).

### INSECTS

GRANULATE CUTWORM (Feltia subterranea) - FLORIDA - Palm Beach County--mostly this species and some BLACK CUTWORM (Agrotis ipsilon) light all winter and early spring. Damaged 80% of untreated spring crop of celery at Belle Glade week of May 2. Systemic controls effective. (Jones).

STRIPED CUCUMBER BEETLE (Acalymma vittatum) - OHIO - Butler and Hamilton Counties--first adults of season May 11-12. (Flessel, Nelson).

## DECIDUOUS FRUITS AND NUTS

### DISEASES

CEDAR-APPLE RUST (Gymnosporangium juniperi-virginianae) - WISCONSIN - Southern counties--galls on redcedar and juniper began sporulating last period. (Lovett).

### INSECTS

CODLING MOTH (Laspeyresia pomonella) - UTAH - Cache County--adults 16 in 5 pheromone traps May 13-14 and 10 per trap May 14-15 at Logan (Davis); 19 in 2 traps at River Heights (Thatcher). Box Elder County--adults 100+ in pheromone trap May 14-15 at Perry. (Lindsay). KANSAS - Neosho, Shawnee, Riley, Harvey, and Sedgwick Counties--adults in pheromone traps in apple orchards. (Morris et al.).

ORIENTAL FRUIT MOTH (Grapholitha molesta) - ARKANSAS - Desha County--larvae in twig tips of plum, crabapple, and other fruit trees. (Wall). KANSAS - Shawnee, Riley, Montgomery, and Sedgwick Counties--adults in pheromone traps in peach orchards. (Hilbert et al.).

REDBANDED LEAFROLLER (Argyrotaenia velutinana) - INDIANA - Tippecanoe County--adults 8 in 54 pheromone traps in apple orchards week ending May 17. (Meyer). NEW HAMPSHIRE - Southern area--eggs laid in apple trees week of May 8. (Burger).

PEAR PSYLLA (Psylla pyricola) - MICHIGAN - Statewide--adults active and eggs on twigs and spurs. First hatch in Paw Paw area on May 10. Adults currently less numerous, but eggs will continue to be laid until petal fall. First nymphs in Grand Rapids area May 11, in Oceana County on May 15, and at Romeo, Macomb County, on May 16. (Olson).

PECAN NUT CASEBEARER (Acrobasis nuxvorella) - NEW MEXICO - Majority of overwintered larvae pupated. Eddy County--appeared to be increasing again on nut trees in Carlsbad area. (Granado). TEXAS - Status on pecans by area May 10-15: Lower gulf coast--egg laying light and late, Williamson County--larvae pupated, south-central area--egg laying extended, Eastland County--pupae 99:larvae 41 in 30 bands, and central area--egg laying late, heavy, and extended. Sprays underway in most areas. (Cole et al.).

#### SLUGS AND SNAILS

BROWN GARDEN SNAIL (Helix aspersa) - OREGON - Lane County--infestation general throughout 1-ha (3-acre) retail sales yard of large nursery at North Eugene. Various snail sizes on species of Prunus, Malus, Erica, Cornus, and Pinus by May 18. Infestation seems well established. Sales area covered with bark and sawdust but had been limed. Controls applied. (Angal, Sjoblom).

#### **CITRUS**

##### INSECTS

CITRUS RUST MITE (Phyllocoptruta oleivora) - FLORIDA - Statewide--slowly increased on citrus; expected to increase rapidly during rainy season. (Townsend).

#### **ORNAMENTALS**

##### INSECTS

A DIASPIDID SCALE (Comstockiella sabalis) - FLORIDA - New county record. Osceola County--adults moderately infested leaves of Sabal palmetto (cabbage palmetto) near Kissimmee May 10, 1978. Collected by G.T. Smith and W.J. Shirley. Determined by A.B. Hamon. (Mead).

A PIT SCALE (Cerococcus deklei) - FLORIDA - New county record. Levy County--moderately infested stems of a Hibiscus sp. plants at residence at Fowler Bluff, March 28, 1978. Collected and determined by F. McHenry. Confirmed by A.B. Hamon. (Mead).

A MEALYBUG (Conchaspis angraeci) - FLORIDA - New county record. Levy County--infested stems of Hibiscus rosa-sinensis (Chinese hibiscus) plant at residence at Fowler Bluff, March 27, 1978. Collected by F. McHenry. Determined by A.B. Hamon. (Mead).

#### **FOREST AND SHADE TREES**

##### DISEASES

DUTCH ELM DISEASE (Ceratocystis ulmi) - CALIFORNIA - Calistoga, Napa County, Hillsborough, San Mateo County, and San Anselmo (new site), Marin County--first confirmed identification of season found in mature elms. (Mote).

## INSECTS

SPRING CANKERWORM (*Paleacrita vernata*) - NORTH DAKOTA - Cass County--1st and 3rd instar larvae up to 350 per 0.6-m (2-ft) limb samples on elm caused shotholing and heavy skeletonizing at Fargo. (Frye, Kopp).

A DIASPIDID SCALE (*Chionaspis heterophyllae*) - FLORIDA - New county record for this species and PINE TORTOISE SCALE (*Toumeyella parvicornis*). Franklin County--adults infested leaves of *Pinus elliottii* (slash pine) along roadside near St. George, April 5, 1978. Collected by Q.G. Anglin, A.E. Graham, and J.J. McRitchie. Determined by A.B. Hamon. (Mead).

COTTONY MAPLE SCALE (*Pulvinaria innumerabilis*) - FLORIDA - New county and host record. Baker County--on stems of *Myrica cerifera* (southern waxmyrtle) along roadside near Glen St. Mary, April 12, 1978. Collected by A.E. Graham and C.H. Webb. Determined by A.B. Hamon. (Mead).

## **MAN AND ANIMALS**

### INSECTS

HORN FLY (*Haematobia irritans*) - FLORIDA - Alachua County--averaged 378 per head in small beef herd at Gainesville. (Johnson). MISSISSIPPI - Neshoba, Winston, Newton, and Scott Counties--adults 10-100+ per head on untreated cattle. (Anderson).

BLACK FLIES (*Simulium* spp.) - SOUTH DAKOTA - East-central area--extreme annoyance to livestock week of May 12. (Walgenbach).

## **BENEFICIAL ORGANISMS & THEIR ENEMIES**

### WEEDS

A CHRYSOMELID BEETLE (*Gastrophysa cyanea*) - INDIANA - Washington County--eggs very heavy on *Rumex* sp. (dock) in alfalfa field on May 10, most hatched by May 17. This fairly sheltered field ahead of fields farther south where first eggs observed by May 17 with no hatching. (Meyer).

## **FEDERAL AND STATE PROGRAMS**

### INSECTS

CEREAL LEAF BEETLE (*Oulema melanopus*) - NORTH CAROLINA - Positive in 41 sites, mostly on wheat, April 6 to May 3. Number of positive sites in most heavily infested counties by county: Stokes--4 of 10, Rockingham--3 of 6, Durham--2 of 3, Granville--3 of 7, Vance--3 of 6, and Warren--3 of 7, Stokes, Person, and Durham Counties--eggs or larvae collected in 5 sites. (Hunt). TENNESSEE - Overton, Pickett, and Jackson Counties--larvae on oats and wheat. (Gregory). Sullivan, Hawkins, Hancock, Anderson, Campbell, Claiborne, Union, and Johnson Counties--surveys negative. (VanLandingham, Quillin).

INDIANA - Cereal leaf beetle averages per 30 row cm (12 row in) in heavily infested portion of field by county: Harrison--eggs about 9 with about 3 damaged or hatched, larvae (50% 1st, 50% 2nd instar) about 1 in field of wheat (near boot stage); and Washington--about 10 (or about 1 per plant), adult feeding on nearly every leaf on field edge of oats 8 cm (3 in) tall, no hatch. (Meyer).



OHIO - Cereal leaf beetle adults per sweep of small grains by county May 3-10: Coshocton--0.02 with eggs fewer than 1 per 0.09 sq m (sq ft) in 0.8-ha (2-acre) small grain field (Turner, Prentice), Richland--0-0.05 with eggs very few in tillering 15-25 cm (6-10 in) wheat, Fairfield--averaged 0.65 on 25-cm wheat, Franklin--0.36 on wheat (1st node of stem visible at base of shoot, averaged 36 cm (14 in). Rainy days and cool nights kept adult activity light. Heavier egg laying rates and egg development expected due to warming trend which began May 10. Current cereal leaf beetle counts by county: Lawrence, Scioto, Adams, and Brown--larvae (2nd instar) fewer than 1 per plant of winter wheat (most with ears swollen but not yet visible, or heading, and averaged 56 cm (22 in) tall); Adams--adults heavy, 2.6 per sweep; Pike--adults numerous but no larvae; Brown--adults heavy, 2.2 per sweep, and eggs averaged 1.3 per plant or 10 per 0.3 row m (row ft), oats tillering and 15 cm tall. Economic threshold at 2 larvae per leaf. (Drees).

MICHIGAN - Buchanan Township, Berrien County, week of May 12--Eggs 3 per stem on oat seedlings (2-3 leaf) and 97 per 0.6 row m (2 row ft) of wheat, with 76 on 1 plant and its tillers, no larvae. Wheat fully tillered and about 20 cm (8 in) tall. Current eggs averaged 6.5 and larvae 0 per stem on 30 stems randomly selected in 4.0-ha (10-acre) field of wheat (stem extension: 1st node of stem visible at base of shoot). (Webster).

GRASSHOPPERS - WASHINGTON - Garfield County--Melanoplus sanguinipes hatched at Central Ferry by May 8, spotted infestation of first instar nymphs on rangeland grass. (Keim). NEW MEXICO - Northern Union County--controls to be applied to 9,274.5 ha (22,900 acres). (Staff). Lea County--nymphs averaged 5-9 per 25 sweeps of alfalfa in Lovington area. (Nielsen). KANSAS - Wabaunsee County--M. bivittatus, mostly 2nd instar nymphs averaged 20 per 0.8 sq m (sq yd) in 1 field of 23-cm (9-in) red clover. (Bell, Knutson). NEBRASKA - Southeast district--some grasshopper eggs hatched. Johnson County--nymphs averaged 3 per 100 sweeps in 4 alfalfa fields. (Miller). About 76,140.0 ha (188,000 acres) of rangeland will be involved in Cooperative Grasshopper Control Program this year. (Bell).

GYPSY MOTH (Lymantria dispar) - NEW HAMPSHIRE - Durham, Strafford County, and Canterbury, Merrimack County--hatch began May 9 after prolonged warm, dry period and short warm, wet period in early May. Larvae still around egg masses and not yet moved to foliage. (Burger).

MORMON CRICKET (Anabrus simplex) - COLORADO - Moffat County--hatched but noneconomic. (Keenan).

RANGE CATERPILLAR (Hemileuca oliviae) - NEW MEXICO - Union County--hatch began southeast of Clayton. (Staff).

## HAWAII PEST REPORT

General Vegetables - Infestations and damage by LEAFMINER FLIES (Liriomyza spp.) heavy on 1 ha (3 acres) of pole beans, 464.5 sq m (5,000 sq ft) of yardlong beans, and 92.90 sq m (1,000 sq ft) of tomatoes at Waimanalo, Oahu. (Fujii, L. Nakahara). CARMINE SPIDER MITE (Tetranychus cinnabarinus) infestations and damage heavy on 1.4 ha (3.5 acres) of pole beans and 464.5 sq m of yardlong beans at Waimanalo. PEPPER WEEVIL (Anthonomus eugenii) heavy on backyard chili pepper at Waimanalo. (L. Nakahara).

Ornamentals - New host record for SPIREA APHID (Aphis citricola) for State. Moderate on Pittosporum tobira (tobira pittosporum) at Honolulu International Airport, Oahu, on March 9, 1977. Collected by H. Tenney and L. Nakahara. Determined by M.B. Stoetzel. (L. Nakahara).

Turf and Pasture - GRASS WEBWORM (Herpetogramma licarsialis) damage moderate to heavy (50-80% defoliation in about 25% of pasture) on 40.5 ha (100 acres) of kikuyugrass pasture at Waihee, Maui. Larvae 3-20 (averaged 7) per 0.09 sq m (sq ft); parasites noted. (McGrath, Miyahira).

Beneficial Insects - All stages of a CHAMAEMYIID FLY (Leucopis obscura) moderate to heavy amid Pineus pini (Eurasian pine adelgid) infestations on pine trees from 488.0 to 1,220-m (1,600 to 4,000-ft) elevation at Olinda and Makawao, Maui. P. pini markedly suppressed by L. obscura, and pine trees showed good recovery (McGrath, Miyahira).

## DETECTION

NEW PUERTO RICAN RECORD

### INSECTS

A DIASPIDID SCALE (Odonaspis ruthae) - PUERTO RICO. (p. 218).

NEW COUNTY RECORDS

### INSECTS

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - OREGON - Josephine; KANSAS - Johnson, Jewell, Smith, Lincoln, and Osborne. (p. 221).

COTTONY MAPLE SCALE (Pulvinaria innumerabilis) - FLORIDA - Baker. (p. 226).

A DIASPIDID SCALE (Chionaspis heterophyllae) - FLORIDA - Franklin. (p. 226).

A DIASPIDID SCALE (Comstockiella sabalis) - FLORIDA - Osceola. (p. 225).

A MEALYBUG (Conchaspis angraeci) - FLORIDA - Levy. (p. 225).

PINE TORTOISE SCALE (Toumeyella parvicornis) - FLORIDA - Franklin. (p. 226).

A PIT SCALE (Cerococcus deklei) - FLORIDA - Levy. (p. 225).

# LIGHT TRAP COLLECTIONS

State	Locality	Date	Time	Temp.	Precip.	Wind	Type of trap	No. of insects	Species	Remarks	Crops
ARIZONA	Mesa 5/8-14	BL	194	46							146 128
FLORIDA	Gainesville 5/11-17	BL		14							3 1
INDIANA (Counties)	Lawrence 5/4-10	BL	37								
	Tippecanoe 5/4-10	BL	2								
KANSAS	Haviland 5/12-18	BL	71	118	80						
	Pratt 5/11-12	BL	5	12	22						1 1
MICHIGAN (Counties)	Berrien 5/9-12	BL	13								
	Mason 5/11-13	BL									79
MISSISSIPPI	Stoneville 5/12-18	2BL	28	4							2 4
NEBRASKA	Clay Center 5/11-17	BL	9		7						1 1
OHIO (County)	Wayne 5/13-19	BL	16								18
TEXAS	College Station 5/10-16	BL	11	0							6 1
WEST VIRGINIA (County)	Randolph 5/16	BL	16								2
WISCONSIN	Hancock 5/11-17	BL	0								0
	Mazomanie 5/11-17	BL	0								0



# Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff  
Plant Protection and Quarantine Programs, USDA

	<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Destination</u>
<u>Chilo suppressalis</u> (Walker) Asiatic rice borer Det. H.A. McKinney	larval	in rice straw from cargo	Republic of China	Seattle	USA
<u>Phloeosinus rudis</u> Chapuis a scolytid beetle Det. D.M. Anderson	adult	dunnage with steel	Japan	Savannah	USA
<u>Pissodes notatus</u> Fabricius a weevil Det. R. Munkittrick	adult	in dunnage with cargo	Belgium	San Francisco	CA
<u>Pseudantonina</u> sp. a mealybug Det. S. Nakahara	adult	on <u>Tillandsia</u> plants from mail	Guatemala	Hoboken	USA
<u>Pulvinaria</u> sp. a soft scale Det. S. Nakahara	adult	on <u>Azalea</u> plants from baggage	Japan	Los Angeles	CA
<u>Urocerus gigas</u> gigas Linnaeus a siricid wasp Det. D. Smith	larval adult	in crating with textile machinery	Spain	Greenville	SC
<u>Helicella striata</u> (Müller) a helcidid snail Det. W.D. McLellan	juvenile	on stems of dried flowers from cargo	Italy	New Orleans	AL
<u>Theba pisana</u> (Müller) white garden snail Det. R. Munkittrick	adult	on gas cylinders	Morocco	Norfolk	VA







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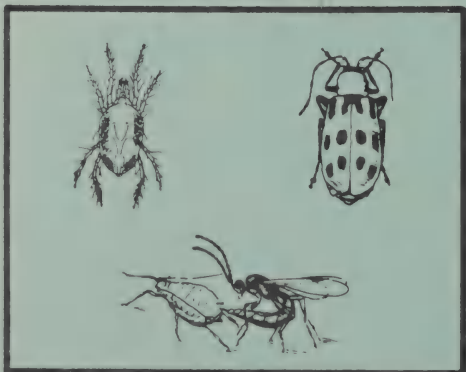
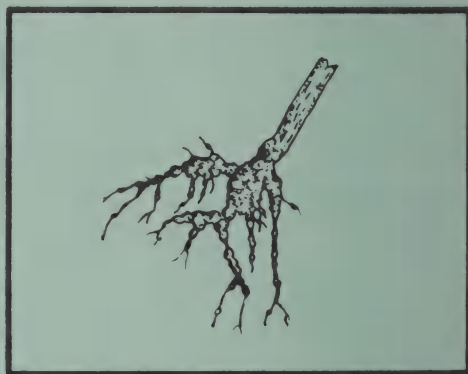
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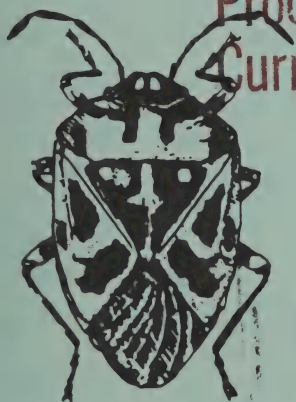
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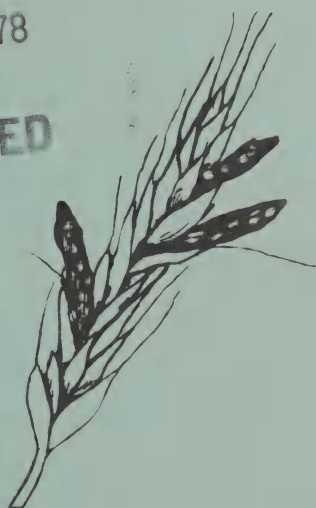
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This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

*Cooperative Plant Pest Report* supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

*Correspondence should be directed to:*

*CPPR*

New Pest Detection and Survey Staff  
Plant Protection and Quarantine Programs  
Animal and Plant Health Inspection Service  
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## COOPERATIVE PLANT PEST REPORT

### HIGHLIGHTS

#### Current Conditions

EUROPEAN CORN BORER pupation or adult emergence well underway in parts of several north-central States. (p. 233).

Controls underway for ARMYWORM on wheat across Oklahoma. (p. 235).

ALFALFA WEEVIL increased in parts of southwestern and south-central Wisconsin and south-central and south-southcentral Indiana. (p. 236-237).

#### Detection

For new county records see page 244.

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Reports in this issue are for the week ending May 26 unless otherwise indicated.

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## CORN, SORGHUM, SUGARCANE

### INSECTS

EUROPEAN CORN BORER (Ostrinia nubilalis) - NEBRASKA - Percent survival and pupation in corn by county (5 sites each): Colfax--35%, 26%; Butler--19%, 36%; Saunders--38%, 11%; Dodge--8%, 29%. A fungus main cause of dead larvae. (Buske). MISSOURI - Boone County--first adult trapped May 19. Southeastern area--adults active in corn. Madrid County--egg masses 0-4 per 100 corn plants 53-71 cm (21-28 in) tall in 2 fields. (Munson). IOWA - Decatur County--pupation about 20% in 1 field of upright cornstalks. Lucas, Warren, and Marshall Counties--no pupae. Story County--adults 200 in light trap at Ames, May 23. Winter survival averaged 68%. (Townsend, DeWitt).

KENTUCKY - First European corn borer adult of season. Fayette County--1 in light trap on May 10. Central area--pupation 20-60% in 3 corn fields. (Sloderbeck). ILLINOIS - Extreme southern areas and beginning as far north as U.S. Highway 50--adult emergence well underway. (Black). INDIANA - Pupation in upright cornstalks by county (10 larvae each): Jackson--9 of 10 by May 23, Lawrence--6 by May 22, Dubois--10 by May 22 with 1 adult collected. (Meyer). OHIO - Champaign County--2 of 6 fully grown larvae in dead cornstalks, pupated by May 24. Franklin County--first male in pheromone trap May 25. (Holdsworth). MARYLAND - Eastern Shore counties--adults emerged, 5-20 per night in blacklight traps at 6 sites. Corn planted May 10-17 will be hardest hit week of June 15 onward. (Hellman, Pinto).

MINNESOTA - Blue Earth and Faribault Counties--overwintered European corn borer population 20% 5th instar, 50% pupae, and 20% emerged in 10 corn fields. (Sreenivasam). WISCONSIN - Pupation well underway: Columbia County--56% completed May 24 and Kenosha County--40% completed May 22. Due to slow emergence of most early planted corn, general heavy populations of first generation larvae will probably not develop. (Lovett).

BLACK CUTWORM (Agrotis ipsilon) - MISSOURI - Damage by area: Southeastern--20% of corn in 1 field; west-central--2 fields replanted. (Munson). KENTUCKY - Southern area--damaged scattered corn fields, at least 2 fields in Todd County needed treatment. (Raney).

ARMYWORM (Pseudaletia unipuncta) - MISSISSIPPI - Pike County--damage on early whorl stage corn above economic level, controls applied in localized areas. (Jarratt). MISSOURI - Scott County--2nd and 3rd instars lightly feeding on 0-6% of 2 corn fields 15-20 cm (6-8 in) tall. (Munson).

CORN EARWORM (Heliothis zea) - FLORIDA - Central and southern areas--this species, FALL ARMYWORM (Spodoptera frugiperda), and BEET ARMYWORM (S. exigua) infested whorls in younger sweet corn, 101 ha (250 acres) treated near Alachua, Alachua County. (Baker).

ARMY CUTWORM (Euxoa auxiliaris) - MONTANA - Dawson and McCone Counties--damage heavy to sorghum. (Boe et al.).

SOUTHERN CORN BILLBUG (Sphenophorus callosus) - NORTH CAROLINA - Coastal Plain--activity continued in corn. Pender County--damaged 95% of plants in 10-ha (25-acre) field. Johnston, Edgecombe, and Halifax Counties--spread northward and westward. Near Selma, Johnston County, Red Oak, Nash County, and Scotland Neck, Halifax County--damaging counts, heaviest damage rate at 14% of plants in 4.0-ha (10-acre) corn field. (Jackson, Fedoranko).

CORN LEAF APHID (Rhopalosiphum maidis) - OKLAHOMA - Choctaw County--averaged 30 per plant in terminals of 15-cm (6-in) sorghum checked week of May 19. (Arnold).

GREENBUG (Schizaphis graminum) - MISSOURI - Southwestern area--6-7 per seedling sorghum plant. Scott County--1-2 on 0-16% of plants. (Munson).

CHINCH BUG (Blissus leucopterus leucopterus) - OKLAHOMA - McIntosh County--averaged 1 per plant on young corn week of May 19. (Arnold).

## SMALL GRAINS

### DISEASES

WHEAT LEAF RUST (Puccinia recondita f.sp. tritici) - KANSAS - Statewide--variable. Prevalence/severity on wheat by county: Morris--trace to 80%/trace to 5%, Dickinson--90%/trace to 5%, Marion--10-50%/trace to 5%, McPherson--80-100%/trace to 5%, Sumner--100%/10-15%, Reno--5%/trace %, Harvey--50%/trace %, Pratt--10%/trace %, Thomas--trace %/trace %, Lyon--40-80%/trace to 5%, Geary--trace %/trace %, and Wabaunsee--20%/trace to 5%. (Sim). SOUTH DAKOTA - First of season. Prevalence/severity on winter wheat (tillering) by county May 15-19: Lyman--trace/trace, Jones--trace/trace, Mellette--trace/trace, Tripp--trace/trace, Ziebach--trace/trace. (Jons).

CROWN RUST (Puccinia coronata) - WISCONSIN - Dane County--orange cluster cups began to develop on leaf undersides of buckthorn, the alternate host, May 12. (Lovett).

EYESPOT (Pyrenophora trichostoma) - KANSAS - Eastern two-thirds area--prevalence and severity variable in most wheat. (Sim). SOUTH DAKOTA - Prevalence/severity on winter wheat (tillering) by county May 15-19: Lyman--trace to 50%/trace, Jones--trace %/trace, Jackson--trace %/trace, Mellette--trace to 2%/trace, Tripp--trace to 50%/trace, Todd--trace %/trace, Washabaugh--trace to 60%/trace, Bennett--10-100%/trace, Shannon--40-60%/trace. (Jons).

WHEAT POWDERY MILDEW (Erysiphe graminis f.sp. tritici) - KANSAS - Eastern one-half area--in many wheat fields. Prevalence/severity by county: Marion--80%/moderate, Chase--30%/light, Lyon--100%/moderate, Wabaunsee--50%/light, Morris--100%/heavy, Dickinson--100%/moderate to heavy, McPherson--trace/-, Sumner--trace/-, Montgomery--100%/light, and Wilson--100%/heavy. (Sim).

SPECKLED LEAF BLOTCH (Septoria tritici) - KANSAS - Statewide on wheat. Northwestern and west-central areas--prevalence 10-50%/severity light. (Sim).

TRITICEA LEAF SPOT (Septoria avenae f.sp. triticea) - SOUTH DAKOTA - Prevalence/severity on winter wheat (tillering) by county May 15-19: Tripp--trace to 50%/trace, and Shannon--trace/trace. (Jons).

TAKE-ALL (Gaeumannomyces graminis var. tritici) - KANSAS - Status by county: Southeastern and central areas--appeared to increase on wheat. Chase--1 severely infected field, and McPherson and Harvey--traces. (Sim).

CEPHALOSPORIUM STRIPE (Cephalosporium gramineum) - KANSAS - Central area--still evident on wheat; prevalence by county: Morris, Marion, and Republic--traces; McPherson--2-30%. (Sim).

LOOSE SMUT (Ustilago vuda) - KANSAS - Central and southeastern areas--most prevalent on wheat heads. Prevalence by county: Marion--2%; McPherson--trace to 10%; Geary, Neosho, Labette, and Republic--trace %. (Sim).

WHEAT LEAF NECROSIS (Pseudomonas syringae) - KANSAS - Republic and Clay Counties--first of season on wheat in State. (Sim).

WHEAT STEAK MOSAIC VIRUS - KANSAS - Western two-thirds area--scattered on wheat, most severe in Ford, Kiowa, and Comanche Counties. Prevalence (all severities light to moderate) by county: Marion--trace to 1%, McPherson--trace %, Wallace--2%, Cheyenne--2%, Thomas--trace to 5%, Sherman--15%, Rawlins--trace %, Logan--2-5%, Scott--5-10%, and Finney--trace to 1%. (Sim). SOUTH DAKOTA - Prevalence on winter wheat (tillering) by county May 15-19: Lyman--trace %, Jones--trace to 5%, Jackson--70% in 1 field, Mellette--trace to 10%, Todd--90% in 1 field, Bennett--trace to 10%, Shannon--25% in 1 field, Fall River--80% in 1 field, Meade--trace, and Ziebach--trace. (Jons).

BARLEY YELLOW DWARF LUTEOVIRUS - KANSAS - Statewide--light and scattered in wheat; prevalence by county: Marion--1-5%, Chase--50%, Lyon--5%, Morris--15%, Geary--trace %, Wabaunsee--trace %, Dickinson--30%, Thomas--trace %, Finney--trace %, Labette--trace %, McPherson--10%, Logan--trace %, and Montgomery--50%. Kiowa and Clark Counties--affected oats in single fields. Clark County--infected portions of barley fields. (Sim).

## INSECTS

ARMYWORM (Pseudaletia unipuncta) - OKLAHOMA - Counts on wheat by county week of May 19: Washita--ranged 8-10 per 0.09 sq m (sq ft) in 3 low lying, rank fields along Washita River, controls planned; Bryan--moderate. Currently in Garfield, Kay, Washita, Caddo, Logan, Oklahoma, Canadian, and Grady Counties--moderate to heavy on wheat; damaged leaves and beards heavy but head clipping almost non-existent. Counts per 0.09 sq m by county: Kay--2-8, Logan--6-10, and Washita--up to 23. Controls underway in most areas. (Arnold). MISSOURI - Southeastern area--larvae fewer than 1 per 0.8 sq m (sq yd) in most wheat fields. Stoddard County--small larvae 0-3 per 0.09 sq m. (Munson).

KENTUCKY - First armyworm larva of season. Todd County--1 larva about 0.950 cm (0.375 in) long in wheat field May 18. (Sloderbeck). ILLINOIS - Almost non-existent on wheat probably due to retarded spring wheat growth and relatively increased attractiveness of grass pastures and roadsides. Wheat began heading in central areas and pollination in southern areas. (Black). MARYLAND - Statewide--first brood adult activity apparently finished as blacklight trap catches nil; larvae rare on small grains. (Hellman, Pinto).

SUGARBEET WIREWORM (Limonijs californicus) - IDAHO - Minidoka County--heavily damaged 8.1-ha (20-acre) wheat field plowed near Rupert. (Stoltz).

GREENBUG (Schizaphis graminum) - OKLAHOMA - Ottawa County--averaged 75 per 0.3 row m (row ft) of oats checked week of May 19. (Arnold). NEBRASKA - Lancaster, Gage, and Johnson Counties--1.3-31.0 (averaged 13.3) per 0.3 row m (row ft) in 8 fields of wheat (flag leaf to early heading stage). Johnson County--12.5 mummies caused by Lysiphlebus testaceipes (an aphidiid wasp) parasitism plus 31 greenbugs per 0.3 row m in 1 field. (Miller).

ENGLISH GRAIN APHID (Macrosiphum avenae) - NORTH DAKOTA - First of season. Sargent County--winged females and nymphs 12 per 50 sweeps of rye. (Scholl).

CHINCH BUG (Blissus leucopterus leucopterus) - NEBRASKA - Lancaster, Gage, and Johnson Counties--adults 0-23.3 (averaged 4.2) per 0.3 row m (row ft) in 8 wheat fields. Mating underway, first generation nymphs expected next 1-2 weeks. (Miller).



## TURF, PASTURES, RANGELAND

### INSECTS

BRONZED CUTWORM (*Nephelodes minians*) - KENTUCKY - Eastern half of area--larvae still damaged pastures at scattered locations, heavily damaged bluegrass pastures in Bourbon County and 4.9 ha (12 acres) of bluegrass pastures in Clark County. (Scheibner, Christensen).

An APHID (*Brevicoryne symphoricarpi*) - CALIFORNIA - New county record. Santa Clara County--collected on *Symphoricarpos* sp. (snowberry) at Permanente by R. Harris and R. Gill, May 17, 1978. Determined by T. Kono. (Hasbrouck).

### FORAGE LEGUMES

### DISEASES

SPRING BLACK STEM (*Phoma medicaginis*) - KANSAS - Status on first growth alfalfa by area: Eastern two-thirds--continued defoliation; western one-third--disease more evident. (Sim).

### INSECTS

ALFALFA WEEVIL (*Hypera postica*) - NEW MEXICO - Status on alfalfa by county: Lea--infested 2 of 15 alfalfa fields east and south of Lovington; 1 field with 1 larva and 5 adults, and other with 3 adults per 25 sweeps (Riddle); Quay--adults averaged 0-1 and larvae 3-5 per sweep at Tucumcari; Union--none near Sedan (Heninger). TEXAS - Pecos and Reeves Counties--adults 30 and larvae 45 per 50 sweeps of alfalfa May 19. (Foster).

NEBRASKA - Alfalfa weevil larvae and adults per 100 sweeps of forage legumes by county: Dawson--1-144 (averaged 27.9) and 0-17 (averaged 3.5) in 24 fields; Otoe--0-27 (averaged 3) and 0 in 24 fields; Lancaster, Gage, and Johnson--0-4 (averaged 1.7) and 0 in 7 fields. Tip feeding insignificant in all fields surveyed and alfalfa beginning to bud. First cutting will not need controls. (Manglitz et al.).

ILLINOIS - Status by area: South of U.S. Highway 50--most alfalfa cut; north of U.S. Highway 50 and south of U.S. Highway 36--many fields will be cut within the week, regrowth appeared good; north of U.S. Highway 36--little to no alfalfa damage will occur. Southern areas--alfalfa weevil pupation well underway, occurred as far north as Pike County. (Black).

WISCONSIN - Western Dane, Iowa, and Sauk Counties--alfalfa weevil increased sharply: Larvae 15-25 per sweep of alfalfa and tip damage on 15-100% of stems, adults still heavy. Grant, LaCrosse, and Trempealeau Counties--tip damage 10-25% and larvae 0.5-1 per sweep. Southeastern, south-central, and central areas and Lincoln and Marathon Counties--larvae 0-8 per 10 sweeps. (Lovett).

KENTUCKY - Alfalfa harvest underway by May 19 although slowed by cool, wet weather earlier. Some fields may need stubble sprays; larvae still averaged 2+ per stem with several 1st and 2nd instars. Percent infested tips and larvae per infested tip by county: Hardin--100%, 4.9 with heavy damage in untreated field; Hart--75%, 2.5; Warren--75%, 2.3; Washington (2 fields respectively)--100% and 100%, 2.9 and 2.5. Current larval populations decreased rapidly due to pupation. Damage became noticeable where unfavorable weather delayed harvest. (Sloderbeck).

INDIANA - Alfalfa weevil by district: Southern--several fields harvested past few dry days, regrowth slow, but larvae generally not heavy enough to be significant cause; central districts south of Indianapolis--infestations increased to 80%, damage will be apparent in most fields if projected 32°C (90°F) temperatures occur during weekend. (Meyer).

TENNESSEE - Sumner County--most forage legume fields cut, alfalfa weevil above control level in 1 uncut field. (Gregory). Total ha (acres) surveyed, ha (acres) requiring control, and ha (acres) treated by county week ending May 19: Anderson--10 (25), 10, 10; Campbell--22 (55), 15 (38), 13 (32); Davidson (revise CPPR 3(20):201)--101 (250), 101, 81.0 (200); De Kalb--48.6 (120), 32 (80), 32; Franklin--850.5 (2,100), 445.5 (1,100), 223 (550); Greene--1,215 (3,000), 891.0 (2,200), 729.0 (1,800); Knox (revised)--122 (300), 81.0, 30 (75); Lawrence--182 (450), estimated 122, estimated 101; McMinn--162 (400), 122, 101; Smith--81.0, 81.0, 60.8; Stewart--16 (40), 0, 0; and Tipton (revised)--estimated 486.0 (1,200), 243 (600), 122. (Keyes et al.).

OHIO - Southern area--alfalfa weevil larvae 3-4 per stem with graying damage in some untreated forage legume fields; central and northern districts--activity much less severe; cool temperatures and rains slowed development and population growth. Following sweep counts probably light due to wet weather. Adults per sweep, larvae per sweep, and percent tips damaged by county: Lucas--0, 0.6, 10%; Wood--0, 0.02, 0%; Franklin--0.25, 1.3, 17%; Champaign (2 fields)--0.2 and 0, 0.2 and 2.0, and 20% and 40%. Alfalfa 36-46 cm (14-18 in) tall. (Drees).

MARYLAND - Alfalfa weevil status on alfalfa by county: Carroll, Frederick, and Washington--4th instars peaked with parasites very light; Montgomery--pupation begun with cutting underway; Dorchester--first year of extensive spraying. (Hellman, Pinto).

VARIEGATED CUTWORM (Peridroma saucia) - KENTUCKY - First larvae of season. Fayette County--swept from alfalfa field on May 25. (Sloderbeck).

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - WASHINGTON - Klickitat County--adults and nymphs heavy in 2-ha (5-acre) alfalfa field at Wishram, May 17. (Pike, Glazer). OREGON - Crook County--PEA APHID (Acyrtosiphon pisum), mostly, and blue alfalfa aphid light with no damage to alfalfa in Prineville area; Jefferson County--surveys for blue alfalfa aphid negative on commercial alfalfa and roadside sweetclover in Madras area. (Penrose).

NEVADA - Diamond Valley, Eureka County, and adjacent areas in Eureka and White Pine Counties--blue alfalfa aphid, mostly, and A. pisum 1-15 per sweep of hay alfalfa. New county record for Eureka County. Collected from alfalfa by S.D. Peters, May 24, 1978; determined by R.C. Bechtel. (Peters). Mostly A. pisum averaged per sweep of seed alfalfa by county: Churchill--30 in Dixie Valley (Hilbig) and Pershing--50 at Lovelock (Munk, Stitt). ARIZONA - Pinal County--blue alfalfa aphid 27 per 100 sweeps of alfalfa. (Brooks et al.).

OKLAHOMA - New county records. At Slapout, Beaver County, Waynoka, Woods County, and Sharon, Woodward County--light on alfalfa by May 19, 1978, collected and determined by R.C. Berberet; Bryan County--light on alfalfa at Yarnaby, May 23. Collected and determined by D.C. Arnold. (Arnold).

PEA APHID (Acyrtosiphon pisum) - TEXAS - Pecos and Reeves Counties--85 per 50 sweeps of alfalfa May 19. (Foster). OKLAHOMA - Counts on forage legumes by county week of May 19: Grant--5-100 per 0.09 sq m (sq ft), Beckham and Washita--averaged 125 per 10 sweeps, and Muskogee--100 per 10 sweeps. Current averages per 10 sweeps of alfalfa by county: Garvin--3,000 in scattered fields and Bryan--1,700 in 1 field. (Arnold).



SPOTTED ALFALFA APHID (Therioaphis maculata) - NEW MEXICO - Quay County--winged adults averaged 0-1 and wingless adults 1 per alfalfa stem in Tucumcari area. (Heninger). WISCONSIN - First of season. Grant County--3 per sweep of forages. (Lovett).

POTATO LEAFHOPPER (Empoasca fabae) - NEBRASKA - Southeast district--first of season in alfalfa May 25. Lancaster, Gage, and Johnson Counties--adults 0-8 (averaged 3.1) per 100 sweeps in 7 fields. (Miller). ILLINOIS - Adults on alfalfa relatively light, averaged less than 20 per 100 sweeps. Jersey County--first nymphs of season taken. Populations appear stable and no damage predicted for immediate future. (Black). KENTUCKY - First adult of season. Fayette County--in alfalfa field May 22. (Parr).

## SOYBEANS

### DISEASES

SOYBEAN CYST NEMATODE (Heterodera glycines) - TENNESSEE - New county record. Warren County--3 infested soybean fields near Centertown by P.D. Foster and R.A. Johnson, May 22, 1978; determined by R.E. Harrison. (Gordon).

## PEANUTS

### INSECTS

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - FLORIDA - Southwestern Alachua and northeastern Levy Counties--treatments needed on 122 ha (300 acres) of peanuts. (Baker).

TOBACCO THRIPS (Frankliniella fusca) - FLORIDA - Jackson County--increased from 1-2 per peanut bud past period to average 11 per bud; damaged 80% of plants in untreated acreage near Marianna. (Tappan).

## COTTON

### INSECTS

BOLL WEEVIL (Anthonomus grandis) - TEXAS - Punctured squares per 100 cotton plants by county May 18-19: Cameron--0-1, Hidalgo--0-5 with some larvae in squares, Willacy--fewer than 5, Kleberg--0-5, Nueces--0-4, San Patricio--0-3, Bell and Falls Counties--few adults trapped, Ellis and Navarro Counties--adults 69 in 36 traps per week. (Parker et al.). MISSISSIPPI - Adults by county second week of May: Clarke--123 in 3 traps, Copiah--73 in 2, Covington--59 in 2, Franklin--23 in 2, Lincoln--133 in 2, Scott--31 in 2, Rankin--71 in 19, Yazoo--1 in 8, Claiborne--5 in 2, Adams--1 in 2, Hinds--20 in 4, and Montgomery--0 in 1. Trap catches increased sharply above May 1977 totals. (Mitchell).

BOLLWORMS (Heliothis spp.) - TEXAS - Lower Rio Grande Valley and lower gulf coast areas--BOLLWORM (H. zea) larvae increased on cotton. H. zea and TOBACCO BUDWORM (H. virescens) eggs, larvae, and damaged squares per 100 cotton plants by county May 19: Cameron--0-10, 0-3, 0-37; Hidalgo--0-2, large larvae 0-9, unstated in most fields; at Pharr, 50+, almost 15, unstated in part of 1 field; Willacy--almost 0, 0-9, 0-4; Kleberg--0-4, 0-8, 0-31; Nueces--0-3, 0-14, 0-22; at Chapman Ranch, unstated, larvae almost 1 per plant, damaged squares up to 40%; and San Patricio--0-2, 0-6, 0-14. (Norman et al.). Pecos and Reeves Counties--H. zea, 9.7 males to 10.4 females and H. virescens fewer than 1 male per trap per night May 19. (Foster).

BEET ARMYWORM (Spodoptera exigua) - NEW MEXICO - Dona Ana County--heavy larval populations needed treatments in cotton fields in mesa areas north and east of Mesquite; main valley area--larvae very light and scattered but damage apparent. (Nielsen).

COWPEA APHID (Aphis craccivora) - CALIFORNIA - Kern County--this species and POTATO APHID (Macrosiphum euphorbiae) active on cotton at Bakersfield. Fed on leaves and growing tips of plants in third true-leaf stage (Bentley).

COTTON FLEAHOPPER (Pseudatomoscelis seriatus) - TEXAS - Blacklands and north-central areas--potential problem on cotton. Lower Rio Grande Valley and lower gulf coast area--generally light. Counts per 100 cotton plants by county May 16-19: Cameron--0-10, Hidalgo--0-5, Willacy--0-40, Kleberg--0-14, Nueces--0-16, San Patricio--0-12, Williamson and Milam--0-40, nymphs 5-20 in few fields; Bell and Falls--5-20 per 100 terminals in most fields; and Hill and Johnson--0-20 per 100 terminals. (Cocke et al.).

## **SUGAR BEETS**

### INSECTS

SUGARBEET WIREWORM (Limonijs californicus) - IDAHO - Canyon County--seriously damaged several sugarbeet fields in Dry Lake area. (Barid).

## **POTATOES, TOMATOES, PEPPERS**

### INSECTS

GREEN PEACH APHID (Myzus persicae) - FLORIDA - Gadsden County--moderately infested 4.1 ha (10 acres) of staked tomatoes near Gretna; field treated twice. (Tappan).

## **BEANS AND PEAS**

### DISEASES

PEA MOSAIC VIRUS - WISCONSIN - Columbia County--leaf mottle and chlorosis on few isolated plants in field of canning peas. (Lovett).

### INSECTS

BEAN LEAF BEETLE (Cerotoma trifurcata) - ILLINOIS - Mason County--damage economic in snap bean fields near alfalfa that had 1 adult per sweep. (Black).

TARNISHED PLANT BUG (Lygus lineolaris) - WISCONSIN - Trempealeau, La Crosse, Adams and Waushara Counties--averaged 1 per sweep of alfalfa, heavy for so early in season. May be threat to beans later. (Lovett).

## **GENERAL VEGETABLES**

### INSECTS

ASTER LEAFHOPPER (Macrosteles fascifrons) - WISCONSIN - As far north as Lincoln County and from Mississippi River to Lake Michigan--migrants present, heaviest in western portion of State where 9 per 100 sweeps found in Crawford and Trempealeau Counties. (Lovett).

## DECIDUOUS FRUITS AND NUTS

### INSECTS

ORIENTAL FRUIT MOTH (Grapholitha molesta) - OKLAHOMA - Wagoner County--adults 3-17 (averaged 10) per pheromone trap in 6 traps in 3 peach orchards week ending May 15. Adults averaged 10 week ending May 2. (Arnold).

CODLING MOTH (Laspeyresia pomonella) - OKLAHOMA - Wagoner County--0-3 (averaged 1) per pheromone trap in 3 traps in 2 apple orchards week ending May 15. (Arnold).

LESSER PEACHTREE BORER (Synanthedon pictipes) - OHIO - Wayne County--adult flight begun, first adult in pheromone trap May 22. (Boggs).

EASTERN TENT CATERPILLAR (Malacosoma americanum) - MAINE - As far north as Caribou, Aroostook County--larvae active, very heavy in many areas. Large tents visible on cherry and apple trees. (Gall).

SHOTHOLE BORER (Scolytus rugulosus) - NEW MEXICO - Lea County--severely damaged mature cherry trees in orchards at Hobbs, holes in bark very numerous with dead and weakened branches very evident. (Nielsen).

EUROPEAN RED MITE (Panonychus ulmi) - INDIANA - La Porte County--averaged 3-4 per leaf, ranged 0-20% on apple trees in orchards not treated with oils. (Matthew).

PECAN NUT CASEBEARER (Acrobasis nuxvorella) - TEXAS - Status on pecans by county May 17-19: Wilson, Gonzales, De Witt--hatched; Williamson and Milam--hatch began; Young--emergence 25%; and Runnels--eggs and larvae 14 per 300 nutlets. (Glodt et al.). OKLAHOMA - Love County--first eggs of season May 22, averaged 2.5%. Average counts by county: Bryan--0 and 3% at 2 sites, Marshall--0% at 1 site, Johnston--3%, Carter--2%, Murray--4%, Garvin--1%, and Pontotoc and Seminole--0%. Payne County--adults 3 in 2 light traps on May 24 and 0 on May 25. (Arnold).

HICKORY SHUCKWORM (Laspeyresia caryana) - OKLAHOMA - Payne County--adults in pecan orchards: 228 in 2 light traps May 19, 328 in 2 light traps May 20-24, 203 in 1 trap May 25. (Arnold).

BLACKMARGINED APHID (Monellia costalis) - OKLAHOMA - First of season. Kingfisher and Garfield Counties--10-15 per leaflet on scattered pecan trees week of May 19. (Arnold).

## CITRUS

### INSECTS

YELLOWHEADED LEAFHOPPER (Carneocephala flaviceps) - FLORIDA - New county record. Dixie County--adults infested leaves of Citrus sinensis (sweet orange) tree at residence at Suwannee, March 22, 1978. Collected by A.E. Graham. Determined by F.W. Mead. (Mead).

A LEAFHOPPER (Homalodisca coagulata) - FLORIDA - New county record. Dixie County--collected on citrus at Suwannee, May 23, 1978, by A.E. Graham and C.H. Webb. Determined by F.W. Mead. (Mead).

A FLATID PLANTHOPPER (Metcalfa pruinosa) - FLORIDA - New county record. Dixie County--collected on dooryard orange and grapefruit trees at Suwannee, May 22, 1978, by F.J. McHenry and C.B. Lieberman. Determined by F.W. Mead. (Mead).

## OTHER TROP. & SUBTROP. FRUITS

### INSECTS

A SOFT SCALE (Pulvinaria mesembryanthemi) - CALIFORNIA - New county record. Alameda County--adults collected on Mesembryanthemum edule (hottentotfig) at Berkeley on May 12, 1978, by C. Kitayama. Determined by R. Gill. (Hasbrouck).

## FOREST AND SHADE TREES

### INSECTS

PALES WEEVIL (Hylobius pales) - MARYLAND - Worchester and Wicomico Counties--adults damaged 14 ha (35 acres) of loblolly pine seedlings week ending May 19. (Hellman, Pinto).

NANTUCKET PINE TIP MOTH (Rhyacionia frustrana) - TEXAS - Rusk, Smith, and Morris Counties--second generation larvae infested 50% of terminals in forests by May 19. (Robinson).

EUROPEAN PINE SHOOT MOTH (Rhyacionia buoliana) - OREGON - Umatilla County--late pupal stage on ornamentals at Hermiston. Benton County--larvae pupated near Kings Valley. (Larson et al.).

ZIMMERMAN PINE MOTH (Dioryctria zimmermani) - NEBRASKA - Continued to extend range in State. Wayne and Pierce Counties--isolated infestation reported. (Ostrofsky, Gavitt).

FOREST TENT CATERPILLAR (Malacosoma disstria) - INDIANA - Larval status in outbreak area: At southern end of area from Lawrence to Martin County lines--50% 3rd and 4th instars; at northern end--10% 2nd and 80% 3rd. Monroe County--larvae at Bloomington, farthest east ever taken in this county and possibly extension of outbreak range. Several unusual behavior traits observed: Only 25% hatched, some larvae left host for no reason earlier than usual, while others remained inactive on undersides of leaves; and feeding activity light. Parasite activity by Sarcophaga aldrichi (a flesh fly) began this period. (Bunjcs et al.).

A CHRYSOMELID BEETLE (Chrysomela interrupta) - FLORIDA - New county record. Duval County--adults and larvae infested Alnus rugosa (speckled alder) along road near Jacksonville, May 1, 1978. Collected by W.B. Wykle. Determined by R.E. Woodruff. (Mead).

## MAN AND ANIMALS

### INSECTS

HORN FLY (Haematobia irritans) - TEXAS - Counts on livestock by county May 19: Donley, Collingsworth, Armstrong--300-400 per head; Tom Green and Runnels--150-200 per side. (Patrick, Wilson). OKLAHOMA - Counts per head of cattle by county: Pittsburg--200-300 week of May 19; Latimer--currently averaged 150. (Arnold).

COMMON CATTLE GRUB (Hypoderma lineatum) - TEXAS - Tom Green County--adults active in San Angelo area by May 19. (Wilson).



## BENEFICIAL ORGANISMS & THEIR ENEMIES

### INSECTS

AN ICHNEUMONID WASP (Bathyplectes curculionis) - OKLAHOMA - Parasitism of Hypera postica (alfalfa weevil) by county April 17 to May 9: Beaver--50%, Alfalfa--45%, Major--58%, Woods--36%, Woodward--45%, Grant--43%, Kay--77%, Noble--38%, Payne--78%, Tulsa--13%, Washington--61%, Blaine--83%, Custer--17%, Roger Mills--34%, Grady--32%, Lincoln--26%, McClain--31%, Pottawatomie--31%, Wagoner--18%, Comanche--20%, Greer--8%, Jackson--17%, Kiowa--10%, Carter--23%, Garvin--17%, Murray--9%, and Stephens--71%. Statewide average 36.7%. (Arnold).

AN APHIDIID WASP (Lysiphlebus testaceipes) - NEW MEXICO - Eddy County--this parasite of Hypera postica (alfalfa weevil) released in alfalfa near Artesia. (Ellington).

A MYMARID WASP (Anaphes flavipes) - INDIANA - Franklin County--parasitized 50% of Oulema melanopus (cereal leaf beetle) larvae recovered in individual oat fields in Bath Township, May 9, 1978. (T.L. Burger).

### WEEDS

A WEEVIL (Rhinocyllus conicus) - KENTUCKY - Fayette County--adults mated and laid eggs on Carduus nutans (musk thistle) at 1975 release site at Lexington, May 25. Eggs and adults readily found up to 0.8 km (0.5 mile) from release site. Thistles just beginning to head and only terminal heads suitable for egg laying. (Sloderbeck). INDIANA - Switzerland and Johnson Counties--released in 1977 and 1978 against musk thistle; no recovery in 1977. (Clark).

## FEDERAL AND STATE PROGRAMS

### INSECTS

CEREAL LEAF BEETLE (Oulema melanopus) - TENNESSEE - Larval finds on oats by county: Smith--May 23, Wilson--May 24, and Sumner--May 25. (Johnson et al.). On wheat: Cumberland--May 24; White, De Kalb, Grundy and Cannon--negative. (Eisler et al.).

INDIANA - Cereal leaf beetle egg and larval averages per 30 cm (12 in) by county: Harrison--2.6 and 3.6 (mostly 1st and 2nd instars) in heavily infested portions of wheat field (headed); Washington--38 and 2.6 in oat field about 25 cm (9.9 in) tall; Union and Fayette--up to 5 or fewer than 1 on oats, no hatch. (Meyer). MICHIGAN - Berrien County--eggs averaged 6.5 per stem from 30 randomly selected stems in 4.0-ha (10-acre) field of wheat (1st node of stem visible at base of shoot) in Buchanan Township May 15; no larvae. (Webster).

OHIO - Central, north-central, west-central, and northwest districts--cereal leaf beetle eggs very few, larvae none, and adults few on winter wheat and oats. (Drees). PENNSYLVANIA - Dauphin County--adults 2 per 100 sweeps of oats at Hershey, May 10. (Henry). MARYLAND - Statewide--subeconomic on small grains. Prince Georges County--adults laid eggs, 2nd instars light week ending May 19. (Hellman, Pinto).

GRASSHOPPERS - OREGON - Baker County--Melanoplus sanguinipes up to 25 per 0.8 sq m (sq yd) in Snake River Canyon. Prevailing cold and wet weather may have caused nymphal mortality and delayed hatch. (Goeden). NEW MEXICO - Many areas--hatched. McKinley, Guadalupe, De Baca, San Miguel, and Lea Counties--economic. (Staff). TEXAS - Pecos and Reeves Counties--755 per 50 sweeps of alfalfa (Foster); Wilson and Karnes Counties--heavy on rangeland by May 19 (Parker, Rothrock).

OKLAHOMA - Ellis, Major, Woods, Woodward, Blaine, and Dewey Counties--grasshopper nymphs, 1st to 3rd instar, 3-12 per 0.8 sq m (sq yd) on rangeland in most areas; up to 25 per 0.8 sq m in isolated favorable areas in Ellis County (south of Arnett and northwest of Shattuck) and Woods County (Freedom and Waynoka area along Cimarron River). Phlibostroma quadrimaculatum, Ageneotettix deorum, Aulocara ellioti, Hesperotettix speciosus, Melanoplus bivittatus, and M. packardii present. (Arnold). NORTH DAKOTA - Sargent County--1st through 3rd instars very light on alfalfa. (Scholl).

GYPSY MOTH (Lymantria dispar) - PENNSYLVANIA - Centre County--hatched in Greens Valley, Bald Eagle State Forest, May 12. Dauphin County--1st instar larvae on Norway spruce at Harrisburg, May 10. (Waldvogel et al.). Berks, Chester, Dauphin, and Lebanon Counties--larvae on oaks May 19. Southeastern and south-central counties--cooperative control program began May 19. (Slipsey).

PINK BOLLWORM (Pectinophora gossypiella) - ARIZONA - Yuma County--began to appear on cotton. (Roney et al.).

RANGE CATERPILLAR (Hemileuca oliviae) - NEW MEXICO - Union, Colfax, Harding, and Mora Counties--hatch began; recent rains will probably induce additional hatch. (Staff). TEXAS - Northwestern Dallam County--hatch began May 19 on rangeland. (Patrick). OKLAHOMA - Cimarron County--hatch 20-30% completed on rangeland by May 18. (Arnold).

SCREWWORM (Cochliomyia hominivorax) - Total of 144 cases reported from continental United States April 23 to May 6 as follows: Texas 1, New Mexico 19, Arizona 117, California 7. (Meadows). Total of 559 cases confirmed in portion of Barrier Zone in Republic of Mexico. Total of 801 cases reported in Mexico south of Barrier Zone. (Williams, Smith). Number of sterile flies released this period totaled 131,373,400 as follows: Texas 54,318,600, New Mexico 2,384,600, Arizona 71,197,000, California 3,473,200. (Meadows). Total of 299,792,000 sterile flies released within Barrier of Mexico. (Williams, Smith).

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#### Hawaii Pest Report

General Vegetables - GREENHOUSE WHITEFLY (Trialeurodes vaporariorum) heavy on 0.10 ha (0.25 acre) of bittermelon at Waialua, Oahu, and 0.10 ha of pumpkin at Sunset Beach, Oahu. (L. Nakahara).

Corn - Severe CORN PLANTHOPPER (Peregrinus maidis) infestations and heavy damage on 203 ha (500 acres) of forage corn at Kohala, Hawaii Island. Not confined to leaf axils. (Namba).



## DETECTION

### NEW COUNTY RECORDS

#### DISEASES

SOYBEAN CYST NEMATODE (Heterodera glycines) - TENNESSEE - Warren. (p. 238).

#### INSECTS

AN APHID (Brevicoryne symphoricarpi) - CALIFORNIA - Santa Clara. (p. 236).

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - OKLAHOMA - Beaver, Woods, Woodward, Bryan; NEVADA - Eureka. (p. 237).

A CHRYSOMELID BEETLE (Chrysomela interrupta) - FLORIDA - Duval. (p. 241).

A FLATID PLANTHOPPER (Metcalfa pruinosa) - FLORIDA - Dixie. (p. 240).

A LEAFHOPPER (Homalodisca coagulata) - FLORIDA - Dixie. (p. 240).

A SOFT SCALE (Pulvinaria mesembryanthemi) - CALIFORNIA - Alameda. (p. 241).

YELLOWHEADED LEAFHOPPER (Carneocephala flaviceps) - FLORIDA - Dixie. (p. 240).

## LIGHT TRAP COLLECTIONS

State	County	Locality	Date	Temp., F	Precip., in	Wind, mi/hr	Type of trap	No. of insects		Total	No. of specimens	Remarks
								Collected	Released			
ARIZONA		Mesa 5/21	5/21	125	BL	18	93	767	87	2274	141	115
CALIFORNIA		Bellota 5/18	5/18-34	3	BL	3	1	7	1	1	37	7
FLORIDA		Gainesville 5/18-24		3	BL	9	10	13				
KENTUCKY		Elkton 5/18-22		19	2BL	39	3	3				
		Trenton 5/18-22		3	BL	18	33	18				
MISSISSIPPI		Stonerville 5/19-25	5/19-33	39	2BL	18	33	18				
OHIO		Huron 5/19-25		5	2BL	10	10	10				
PENNSYLVANIA		(Districts)		2	BL	2	2	2				
		Central 5/21-23		2	BL	1	1	1				
		North West 5/21-23		0	BL	0	0	0				
TEXAS		College Station 5/17-23		1	BL	0	1	0				
WISCONSIN		Hancock 5/18-24		0	BL	0	0	0				
		Lancaster 5/18-24		0	BL	0	0	0				

# Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff  
Plant Protection and Quarantine Programs, USDA

	<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Destination</u>
<u>Uromyces ciceris-arietinum</u> a rust (Grogg.) Jacz. & Boyer Det. F.G. Pollack	uredial	on debris with garbanzos	Mexico	Roma	USA
<u>Cryptophlebia illepidia</u> (Butler) koa seedworm Det. R. Kunishi	larval	in Macadamia nuts from baggage	Hawaii	Hilo	CA
<u>Dacus dorsalis</u> Hendel <u>Oriental fruit fly</u> Det. R. Kunishi	adult	on walkway into aircraft	Hawaii	Hilo	CA
<u>Maruca testulalis</u> (Geyer) bean pod borer Det. R. Kunishi	larval	in Sesbania cut flowers	Hawaii	Honolulu	CA
<u>Phloeosinus</u> sp. a scolytid beetle Det. D.M. Anderson	larval pupal	in bracing with pallets of screws	Japan	Savannah	GA
<u>Trogoderma granarium</u> Everts <u>Khapra beetle</u> Det. F. Krim	larval	in sweatboard in ship's holds	Unknown	New York	USA
<u>Achatina fulica</u> Bowdich giant African snail Det. R. Kunishi	adult	with baggage	Hawaii	Kahului	CA
<u>Otala vermiculata</u> (Müller) a helixid snail Det. R. Munkittrick	adult	on crating with marble	Italy	Tampa	FL



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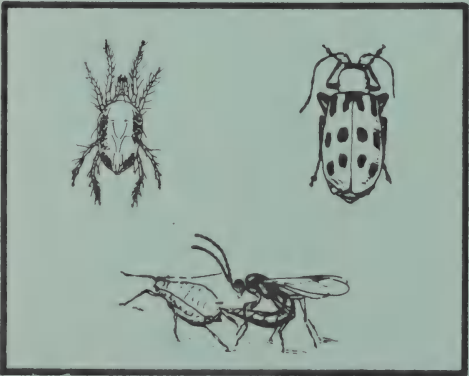


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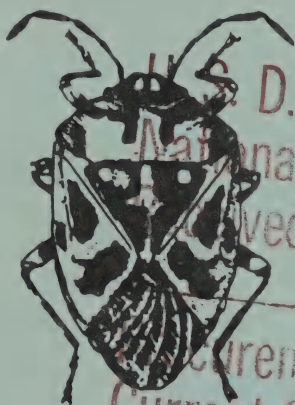
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# Cooperative PLANT PEST REPORT

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This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

*Cooperative Plant Pest Report* supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

*Correspondence should be directed to:*

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## **COOPERATIVE PLANT PEST REPORT**

### **HIGHLIGHTS**

#### Current Conditions

DARKSIDED, DINGY, and other CUTWORMS reported on corn in Nebraska and Minnesota. (p. 249).

FALL ARMYWORM 30 days early on corn in North Carolina. (p. 249).

SPRING BLACK STEM most important alfalfa disease in Wisconsin. (p. 252).

Serious ALFALFA WEEVIL damage to alfalfa in parts of Wisconsin and Ohio. (p. 252-253).

#### Detection

For new county and island records see page 260.

Reports in this issue are for the week ending June 2 unless otherwise indicated.

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## CORN, SORGHUM, SUGARCANE

### INSECTS

EUROPEAN CORN BORER (*Ostrinia nubilalis*) - NEBRASKA - Hamilton County--first adult of season in light trap May 27. First generation borers may have light survival rate due to late-planted corn not acceptable for egg laying or larval development. (Miller, Cranfill).

MINNESOTA - Winter survival of European corn borer statewide 22%, much lighter than 59% survival of 1977 in spite of record high fall populations in all districts. First generation will not be as heavy as expected. Light trap counts indicated adults flying and egg laying underway. (Sreenivasam). WISCONSIN - Adult emergence underway. Most corn too small for egg laying or larval development. Heavier than normal egg laying on alternate hosts expected. Only very early fresh market sweet corn could be heavily damaged. Columbia County--larvae 8%, pupae 88%, and empty pupal cases 4%. (Lovett).

KENTUCKY - European corn borer increased very rapidly. Todd County--first egg mass of season on corn May 30 and first larvae May 31; egg masses averaged 9 and larvae 1.2 per 20 plants in 1 corn field. (Leibee). MARYLAND - Statewide--adults peaked. Lower Eastern Shore counties--fresh egg masses on corn 20+ cm (8+ in) tall. (Hellman, Pinto). DELAWARE - Central Sussex County--eggs on field corn. Adults averaged 24 per night in blacklight catches. (Burbutis, Kelsey).

DARKSIDED CUTWORM (*Euxoa messoria*) - NEBRASKA - Status of this species and DINGY CUTWORM (*Feltia ducens*) by county: Eastern, southeastern, central, and southwestern--damaged seedling corn in scattered areas; Kearney and Fillmore--some fields needed replanting (Peters); Lincoln (3 fields) and Dawson (1 field)--cut 5+% of plants (Campbell); southwestern, central, and eastern--cut 5% of plants in 21 fields (Raun, Monke). MINNESOTA - Becker, Grant, Lac qui Parle, Otter Tail, Yellow Medicine, Carver, McLeod, Meeker, Morrison, Renville, Sherburne, Stearns, Wadena, Wright, Chisago, Isanti, Lyon, Murray, Redwood, Brown, Le Sueur, Martin, Dakota, Fillmore, and Olmsted Counties--*F. ducens*, GLASSY CUTWORM (*Crymodes devastator*), darksided cutworm, and STRIPED CUTWORM (*E. tessellata*) on corn. (Sreenivasam).

A NOCTUID MOTH (*Feltia subgothica*) - IOWA - Story County--total stand loss in 8.1 of 24-ha (20 of 60-acre) corn field. Loss in corn-following-alfalfa portion of field. Damaged corn-following-corn in remainder of field, mainly in rows bordering alfalfa. (Stockdale).

BLACK CUTWORM (*Agrotis ipsilon*) - NORTH CAROLINA - Damage on corn by county: Piedmont area--severe in some fields; Person, Stokes, and Yadkin--stand reduction 25%; Stanly--stand reduction 10%. (Hunt, Hartzog). IOWA - Few damage reports to date. Fremont County--first economic loss on 16 of 32-ha (40 of 80-acre) corn fields. (Stockdale). NEBRASKA - East and southeast districts--adults began to increase, larvae should be noticeable in 14 days. (Cranfill).

CORN EARWORM (*Heliothis zea*) - NORTH CAROLINA - Coastal Plains and Piedmont counties--light in most of 15 corn fields. Halifax and Lenoir Counties to Stanly County--less than 1% on whorl. (Jackson, Hunt). MARYLAND - Eastern Shore counties--overwintered adults emerged 7 days earlier than normal; 0-3 per night in blacklight trap at all locations. (Hellman, Pinto).

FALL ARMYWORM (*Spodoptera frugiperda*) - NORTH CAROLINA - Brunswick County--larvae collected from whorl of sweet corn, about 1 month early for State. Damage severe to small garden planting. (Coleman, Hunt).

STALK BORER (Papaipema nebris) - KENTUCKY - Todd County--first larvae of season May 30. Larvae still very small and outside of stalks. (Leibee).

CORN ROOTWORMS (Diabrotica spp.) - TEXAS - Uvalde County--WESTERN CORN ROOTWORM (D. virgifera) adults 10-15 per corn plant at Knippa, May 24. (Stewart). WISCONSIN - Winter survival of Diabrotica spp. eggs, 88% after 44 days incubation at 25°C (77°F). Hatching begins early June and will be lighter in the field. (Lovett).

GREENBUG (Schizaphis graminum) - TEXAS - Status on sorghum by county May 26: Bell and Falls--up to 150 per colony, Hill and Johnson--fewer than 1 per plant, and Lipscomb--damage found. (Doggett et al.).

CORN LEAF APHID (Rhopalosiphum maidis) - ARKANSAS - Monroe County--reached 100 per plant on occasional sorghum seedlings week ending May 26; beneficial insects and parasitized aphids heavy. (Mayse).

#### Small Grains

#### DISEASES

Small grain harvest underway in south and south-central Texas May 18-31, about 15 days later than normal. Winter wheat fair to poor in Oklahoma but best in north-central section. Inadequate moisture in Oklahoma resulted in estimated 10% of wheat used for grazing or hay. Little wheat will be harvested until mid-June in Oklahoma except for small area around Duncan. Wheat growth from early to mid-dough in southern Oklahoma to full berry in the north, 14 days behind normal. Wheat fair in central Kansas but good to excellent in south-central and north-central areas. Growth stage from full berry in the south to heading and one-fourth berry in the north. Winterkill in winter wheat in northern Great Plains. Spring sown cereals near normal in growth and soil moisture generally good. (Roelfs, Long).

WHEAT LEAF RUST (Puccinia recondita f.sp. tritici) generally light on wheat across OKLAHOMA May 18-31, heaviest severities in north-central region where moisture better. Severities moderate in southern KANSAS and trace to 5% on lower leaves in northern area. Currently in northern part of State, only trace on flag leaves but should rapidly increase with last period's rains. Traces on winter wheat as far north as southern SOUTH DAKOTA. (Jons). In Rosemount, MINNESOTA, winter wheat nursery, leaf rust overwintered on wheat covered by snow during critical cold period. Severe on late entries in Plant Introduction Nursery in ARIZONA. (Kilpatrick). Reported in CALIFORNIA and WASHINGTON. (Line).

MICHIGAN - Oakland County--current wheat leaf rust symptoms in 1 wheat plant [jointing]. (Singh).

YELLOW STRIPE RUST (Puccinia striiformis) heavy on susceptible wheat varieties in CALIFORNIA May 18-31, but commercial fields relatively unaffected due to resistant varieties. Heavy in Willamette Valley of OREGON where commercial varieties Yamhill and Hyslop rusted. Relatively severe near Mt. Vernon, WASHINGTON. Favored by fall rains, volunteer wheat, virulent races, and a cool wet spring in western Oregon and Washington. Started to increase in Palouse area but currently no indication that disease will be unusually severe. Severe on late entries in Plant Introduction Nursery in ARIZONA. (Kilpatrick).

OAT CROWN RUST (Puccinia coronata var. avenae) aecia on buckthorn at St. Paul, MINNESOTA, May 18-31 lightest in many years. Traces occur into northern OKLAHOMA. (Roelfs, Long).



WHEAT POWDERY MILDEW (*Erysiphe graminis* f.sp. *tritici*) - OHIO - Prevalence/severity on wheat [jointing unless stated otherwise] by county week ending May 19: Brown--99%/trace to 30% on lower 3 leaves [jointing to early heading], Clark--99%/trace to 10% on lower 3-4 leaves, Franklin--99%/trace to 15% on lower 3 leaves, Darke--99%/trace to 10% on lower 3-4 leaves, Lucas--99%/trace on lowermost leaves and culms, Mercer--99%/trace on lowermost leaves and culms, Paulding--99%/10-20% on lower 3-4 leaves, Van Wert--99%/trace on lowermost leaves and culms, Williams--99%/trace to 10% on lowermost leaves and culms, and Woods--99%/trace to 5% on lower 3-4 leaves. (Hite).

MICHIGAN - Wheat powdery mildew widespread on wheat. Prevalence/severity on wheat [jointing unless stated otherwise] by county (1 field each): Monroe--15%/10%, Branch--10%/1% [tillering], St. Joseph--20-25%/30-35% [early boot], Berrien--65-70%/30% restricted to lower leaves only, Van Buren--trace, Kalamazoo--25%/20% [tillering], Calhoun--40%/60%, Jackson--30%/25% [early boot]; Wayne--1%/20% [early boot], Macomb--2%/6% limited to 1 side of field, Oakland--80%/20%, and Shiawassee--15%/5% [late boot]. (Singh).

LEAF BLOTCHES (*Septoria* spp.) - OHIO - Prevalence (severity trace) on lower leaves of wheat [jointing unless stated otherwise] by county week ending May 19: Brown--90% [jointing to early head], Clark--50%, Ross--10%, Darke--90%, Henry--20%, Wilkins--50%, Paulding--90%, Preble--50%, Van Wert--90%, Williams--99%, and Wood--50%. (Hite).

ILLINOIS - SPECKLED LEAF BLOTCH (*S. tritici*) prevalence/severity on commercial wheat [second node of stem formed] by county May 15-16: Effingham--100%/3-6%, Shelby--90%/1-3%, Clay--100%/3-6%, Coles--100%/3-6%, Wayne--90%/1-3%, Marion--90%/1-3%, Jasper--100%/1-3%, Edward--90%/1-3%, Jefferson--90%/1-3%, Cumberland--90%/1-3%, and Richland--90%/1-3%. (Jordan).

CEPHALOSPORIUM STRIPE (*Cephalosporium gramineum*) - OHIO - Prevalence on wheat [jointing] by county week ending May 19: Brown--10%, Clark--10%, Clinton--trace, and Ross--trace. (Hite). MICHIGAN - Jackson County--infected few wheat plants [early boot]. (Singh).

WHEAT SPINDLE STREAK MOSAIC VIRUS - OHIO - Prevalence of symptoms in wheat [jointing unless stated otherwise] by county week ending May 19: Brown--99% [jointing to early emergence] in variety trial plots, Clark--99%, Clinton--50%, and Ross--99%; week ending May 26: Darke--90%, Henry--85%, Wilkins--99%, Mercer--50%, Paulding--90%, Van Wert--99%, Williams--99%, and Wood--99%. (Hite).

MICHIGAN - Prevalence of wheat spindle streak mosaic viral symptoms in wheat [jointing unless stated otherwise] by county (1 field each): Monroe--25-30%, Lenawee--30-35% [tillering], Branch--trace [tillering], St. Joseph--trace [early boot], Berrien--trace, Jackson--15% [early boot], and St. Clair--45-50% on lower leaves. (Singh).

SOIL-BORNE WHEAT MOSAIC 'TOBAMOVIRUS' - ILLINOIS - Prevalence on commercial wheat [second node of stem formed] by county May 15-16: Effingham--15%, Shelby--30%, Clay--15%, Coles--25%, Wayne--30%, Marion--15%, Jasper--20%, Edwards--15%, Jefferson--30%, Cumberland--30%, and Richland--30%. (Jordan).

ASTER YELLOWS VIRUS - See ASTER LEAFHOPPER on following page.



## INSECTS

ARMYWORM (Pseudaletia unipuncta) - VIRGINIA - Independent City of Virginia Beach--larvae may soon clip heads of small grains. Adults decreased week before May 23. Larvae unusually light, considering heavy adult catches of previous periods. (Allen). MARYLAND - Well below normal and subeconomic in all barley and wheat surveyed. (Hellman, Pinto). MINNESOTA - Nobles County--adults 82 in light traps at Worthington, no larvae yet. (Sreenivasam).

RICE WATER WEEVIL (Lissorhoptrus oryzophilus) - ARKANSAS - Status on rice in eastern counties week ending May 26: Jefferson--trace in 4 fields, Arkansas--2 of 7 fields at treatment level, Prairie--1 of 2 fields at treatment level, Monroe--1 field below treatment level, and Jackson--2 of 2 fields at treatment level. (Mayse).

ASTER LEAFHOPPER (Macrosteles fascifrons) - WISCONSIN - Migrants and ASTER YELLOW VIRUS infections light, less than 1%. Waushara County--leafhoppers 24 per 100 sweeps of oats, heaviest counts found; southern one-third area--averaged 3 per 100 sweeps of oats. (Lovett). MINNESOTA - Becker County--aster leafhopper adults 8 per 700 sweeps of rye and 5 per 200 sweeps of winter wheat. (Sreenivasam).

RICE STINK BUG (Oebalus pugnax) - ARKANSAS - Eastern area--adults unusually heavy in certain oat and wheat fields week ending May 26. Counts per 10 sweeps by county: Lonoke--92 at edge of oat field, averaged 13 in middle of field; Prairie--12 in 2 oat fields, 11 in 2 wheat fields; Monroe--4 in 3 oat fields; Poinsett--3 in 2 wheat fields; Lawrence--2 in 1 wheat field; and Jackson--8 in 1 wheat field. Lonoke County--current adult average in previously heavily infested oat field decreased from about 45 to about 12 per 10 sweeps. (Mayse).

## **FORAGE LEGUMES**

### DISEASES

SPRING BLACK STEM (Phoma medicaginis) - WISCONSIN - Most important and widespread disease on alfalfa. Grant County--prevalence 80-100%/severity 3-5% in fields surveyed. Leaf drop heavy from lower leaflets. (Lovett).

### INSECTS

ALFALFA WEEVIL (Hypera postica) - UTAH - Status by county: Cache--heaviest at Petersboro, but no economic damage, alfalfa cutting started May 18 or when weather favorable (Davis) and Millard--reduced by controls for aphids in Delta area (Karren). COLORADO - La Plata County--larvae 1-2 per sweep of alfalfa. (Hantsbarger). TEXAS - Ochiltree and Lipscomb Counties--very light on alfalfa May 26. (Patrick).

NEBRASKA - Alfalfa weevil status by area: Dawson County--larvae 28-950 (averaged 245.7) and adults 0-8 (averaged 2.3) per 100 sweeps in 16 forage legume fields, alfalfa 51-81 cm (20-32 in) and first cutting will be taken before controls needed; east district--still very light and apparently will not produce any significant infestation; and Otoe County--larvae 0-37 (averaged 4.7) per 100 sweeps, in 24 fields, no adults. (Stevens, SeEVERS).

WISCONSIN - Southwestern, south-central, and southeastern areas--alfalfa weevil damaged forages in all counties. "Frosted" appearance from heavily skeletonized leaves readily seen along Wisconsin River. Tip feeding 5-100%, mostly 50-100%. Alfalfa weevil larvae ranged 4-80 per sweep. West-central, central, and east-central areas--tip feeding and larvae not as heavy but this condition can change easily. Door County--adults heavy. (Lovett).

TENNESSEE - Trousdale, Smith, Sumner, and Macon Counties--alfalfa weevil in all fields surveyed below control level. Total ha (acres) of forage legumes surveyed, ha (acres) requiring controls, and ha (acres) treated by county week ending May 26: Bradley--48.6 (120), 34 (85), and 24 (60); Dyer--122 (300), 60.8 (150), and 30 (75); Sevier--8.1 (20), 8.1, and 8.1; Van Buren--22 (55), 8.1, and 5.7 (14); and Washington--405 (1,000), 405, and 324 (800). (Hale et al.).

OHIO - Central and southern areas--alfalfa weevil began to increase, mostly late instar larvae. (Blair et al.). Brown County--larvae 2.1 per alfalfa stem [53 cm (21 in) tall] or 11.25 per sweep, damaged tips 100% with some graying. (Drees). WEST VIRGINIA - Jefferson County--most forage legume fields cut or being cut. Larvae light and no stubble sprays expected. (Washburn).

VIRGINIA - Total ha (acres) of alfalfa sampled for alfalfa weevil, tips infested per 50 tips, percent infestation, and percent defoliation by county May 22-23: Culpeper--4.1 (10), 11, 22%, and 5%; Montgomery (3 sites)--2 (5), 43, 86%, and 10%; 6.5 (16), 13, 26%, and 5%; and 2 (4), 21, 42%, and 10%. (Morris et al.). Infested 44% of tips, average estimated defoliation 8%. Larvae averaged 0.64 cm (0.25 in) long in most fields. One field (25%) and 14% of acreage exceeded economic threshold of infestation (foliage loss 20% or over). (Allen).

SOUTHERN CORN ROOTWORM (Diabrotica undecimpunctata howardi) - NEW MEXICO - Northern Dona Ana County--adults averaged about 5 per 25 sweeps of alfalfa. (Nielsen).

ALFALFA CATERPILLAR (Colias eurytheme) - ARIZONA - Counts per 100 sweeps of alfalfa by county: Maricopa--1-4 and Pinal--2. (Davis et al.).

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - UTAH - Millard County--this species and PEA APHID (A. pisum) severe on forage legumes in Delta area, 50+% of crop sprayed. Severely infested fields slightly stunted but gradually recovering. (Karren). ARIZONA - Pinal County--adults 19 per 100 sweeps of alfalfa. (Davis et al.).

SPOTTED ALFALFA APHID (Therioaphis maculata) - ARIZONA - Pinal County--51 per 100 sweeps of alfalfa. (Davis et al.).

POTATO LEAFHOPPER (Empoasca fabae) - WEST VIRGINIA - Jefferson County--negative in alfalfa samples. (Washburn).

LYGUS BUGS (Lygus spp.) - UTAH - Cache County--heavy on alfalfa; controls needed before bloom went to seed. (Davis, Knowlton). ARIZONA - Nymphs and adults per 100 sweeps of alfalfa by county: Gila--6, 10; Maricopa--10, 190; Pinal--16, 22; and Yuma--60-80, 100-120. (Davis et al.).

## SOYBEANS

### INSECTS

BEAN LEAF BEETLE (Cerotoma trifurcata) - IOWA - Adams, Keokuk, and Wapello Counties--fed on soybean leaves. Webster County--defoliation 40-50% with beetles 6.3 per 0.3 row m (row ft) on continuous soybeans in 2-ha (4-acre) field. (Stockdale). OHIO - Fayette County--damaged up to 100% of new leaves on 8 to 13-cm (3 to 5-in) soybeans, especially in weedy parts. (Barr). NORTH CAROLINA - Sampson, Lenoir, and Johnston Counties--adults fed on emerging soybean seedlings in 5 fields. (Hunt).

CABBAGE MAGGOT (Hylemya brassicae) - OHIO - Huron County--eggs averaged 10-12 per cabbage plant, sprays applied. (Lyon et al.).

MEADOW SPITTLEBUG (Philaenus spumarius) - OHIO - Ashland County--first noticed on strawberries 14 days ago, populations currently heavy. (Weiss, Williams).

## COTTON

### INSECTS

BOLL WEEVIL (Anthonomus grandis grandis) - TEXAS - Counts per 100 cotton plants by county: Cameron--damaged squares 0-21, Hidalgo--damaged squares 0-30, Willacy--damaged squares 0-1, Kleberg--0-9, Nueces--0-4, and San Patricio--0-5. Ellis and Navarro Counties--16 in 36 traps per week May 24 (Moore); Collin and Hunt Counties--29 in 36 traps per week May 23 (Ruth).

BOLLWORMS (Heliothis spp.) - ARIZONA - BOLLWORM (H. zea) counts on cotton by county: Maricopa--eggs 5 per 100 plants, Yuma--eggs 4-25 per 25 plants, and Pinal--larvae 12 per 25 plants. Pinal County--TOBACCO BUDWORM (H. virescens) damage 2% on cotton. (Pilling et al.). TEXAS - H. zea and H. virescens eggs, larvae, and damaged squares per 100 cotton plants by county May 26: Cameron--0-8, 0-20, and 0-31; Hidalgo--0-40, 0-20, and 0-30; Willacy--0-9, 0-5, and 0-10; Kleberg--0-2, 0-11, and 0-35; Nueces--0-1, 0-3, and 0-18; and San Patricio--0-1, 0-3, and 0-10. (Parker et al.). Williamson and Milam--damaged terminals 5-50% by May 22, damaged squares less than 4%. (Glodt).

BLACK CUTWORM (Agrotis ipsilon) - ARKANSAS - Ashley County--larvae of this species and VARIEGATED CUTWORM (Peridroma saucia) up to 5 per cotton plant, destroyed 81.0-ha (200-acre) stand and seriously damaged another 60.8-ha (150-acre) stand. (Wall).

BEET ARMYWORM (Spodoptera exigua) - ARKANSAS - Ashley County--larvae averaged 1 per plant in 1 cotton field. (Wall).

CABBAGE LOOPER (Trichoplusia ni) - TEXAS - Lower gulf coast area--eggs 100 per 100 cotton plants May 26. (Parker, Rothrock).

COTTON FLEAHOPPER (Pseudatomoscelis seriatus) - TEXAS - Counts per 100 cotton plants by county May 22-26: Cameron--0-25, Hidalgo--0-10, Willacy--0-10, Collins and Hunt--1; counts per 100 terminals: Williamson and Milam--nymphs 0-100, Bell and Falls--1-15 in treated fields and up to 35 in untreated fields, Hill and Johnson--0-40, Blacklands area--up to 70, and Ellis and Navarro--12-54. Wharton and Fort Bend--some damage in nearly all fields. (Cocke et al.).

## TOBACCO

### INSECTS

BLACK CUTWORM (Agrotis ipsilon) - NORTH CAROLINA - Northern Piedmont area--damage severe to tobacco. Person and Yadkin Counties--damaged 30% of plants in localized 2 to 4.1-ha (5 to 10-acre) fields. (Hartzog, Rivers).

## SUGAR BEETS

### INSECTS

BEET WEBWORM (Loxostege sticticalis) - CALIFORNIA - Fresno County--first larvae of season in sugar beet [third and fourth leaf] plantings at Kerman. (Dunnegan).



## MISCELLANEOUS FIELD CROPS

### INSECTS

SUNFLOWER BEETLE (Zygogramma exclamationis) - NORTH DAKOTA - Cass County--first of season. Adults fewer than 1 per sunflower plant, larvae present. (Katayama).

### POTATOES, TOMATOES, PEPPERS

### INSECTS

POTATO FLEA BEETLE (Epitrix cucumeris) - INDIANA - Tippecanoe County--adults economic on tomatoes, averaged about 6 per plant and yellowed tomatoes 25 cm (9.9 in) tall. (Leva).

COLORADO POTATO BEETLE (Leptinotarsa decemlineata) - VIRGINIA - Accomack and Northampton Counties--egg masses heavy on vegetables and some hatched. Larval development at least 10 days behind 1977. Favorable conditions still could result in extensive damage. (Allen).

### BEANS AND PEAS

### DISEASES

PEA ROOT ROT (Aphanomyces euteiches) - WISCONSIN - Sauk County--prevalence about 50%/severity 30% in pea field [near full bloom]. (Lovett).

### INSECTS

PEA LEAF WEEVIL (Sitona lineatus) - IDAHO - Latah County--adult damage moderate to severe on mid-season emerging peas in Potlatch and Genesee areas May 25. Treated acreage about 1% of total acreage, up to 70% treated in previous years. (O'Keefe).

PEA APHID (Acyrtosiphon pisum) - WISCONSIN - Grant County and Spring Green area--first aphids in blooming peas. Winged and wingless aphids averaged 1 per 30 sweeps. (Lovett).

### DECIDUOUS FRUITS AND NUTS

### INSECTS

CODLING MOTH (Laspeyresia pomonella) - UTAH - Cache County--small flight night of May 23, 3-4 per pheromone trap at north Logan, in spite of winds. (Davis). COLORADO - Larimer County--emergence peaked May 30 in Fort Collins area. (Quist). MICHIGAN - First adult pheromone catches by county: St. Joseph--May 24 and Kalamazoo--May 20. (Olsen).

ORIENTAL FRUIT MOTH (Grapholitha molesta) - MICHIGAN - First adult pheromone catches by county: Allegan--May 12, Macomb--May 16, and Ottawa--May 22. (Olsen).

PEACH TWIG BORER (Anarsia lineatella) - COLORADO - Mesa County--first generation adults in pheromone traps in peach orchards May 15. (Mowrer, Stahl).

REDBANDED LEAFROLLER (Argyrotaenia velutinana) - MICHIGAN - Statewide--first generation adults decreased in pheromone traps. Kent County--first egg masses May 19. Van Buren County--first hatched May 17. (Olsen).

WESTERN CHERRY FRUIT FLY (Rhagoletis indifferens) - OREGON - Benton County--first adult from Willamette Valley in pheromone traps at Corvallis, May 31. (Niasee).

APPLE APHID (Aphis pomi) - OHIO - Brown County--winged females and nymphs on up to 70% of growing tips of apples. (Drees). NEW HAMPSHIRE - Rockingham and Strafford Counties--appeared in apple orchards week of May 22, no serious increase yet. (Fisher).

PEARLEAF BLISTER MITE (Phytoptus pyri) - UTAH - Cache County--severely damaged pear foliage on few trees at Providence. (Bjork).

EUROPEAN RED MITE (Panonychus ulmi) - OHIO - Fairfield (2 apple blocks) and Licking (1 block) Counties--1 female adult each of this species, Zetzellia mali, and Amblyseius fallacis (phytoseiid mites), collected from 569 leaves. All orchards on integrated pest management program in 1977 and for 1978. Mite fauna very light. (Holdsworth).

PECAN NUT CASEBEARER (Acrobasis nuxvorella) - NEW MEXICO - Eddy County--egg laying continued, some larvae entered nuts in Carlsbad area. Lea County--no damage or larvae on about 75 pecan trees. (Granado). TEXAS - Status on pecans by county May 25-26: Lower gulf coast area and Williamson--eggs few; Hill--3 per nut cluster; Hill, McLennan, and Bell--potential damage to untreated trees; Uvalde--damage 50% on untreated trees; and Tom Green--eggs laid at San Angelo. (Hoelscher).

FRUITTREE LEAFROLLER (Archips argyrospilus) - CALIFORNIA - Kern County--larvae infested 90% of trees on 486.0 ha (1,200 acres) of almonds at Delano. Larvae mainly on fruit and growing tips. (Bentley).

## SMALL FRUITS

### INSECTS

A NITIDULID BEETLE (Stelidota geminata) - INDIANA - Floyd County--adults economic on about 40.5 ha (100 acres) of established strawberry beds; controls needed to save crop. (Matthew).

STRAWBERRY APHID (Chaetosiphon fragaefolii) - OREGON - First noted February 28. Washington County--aphid control programs begun in western area to help prevent spread of virus, which was severe in 1977. (Collins).

## FOREST AND SHADE TREES

### INSECTS

SPRUCE NEEDLEMINER (Endothenia albolineana) - NEBRASKA - Lancaster, Hall, and Gage Counties--overwintered larvae pupated and adults emerged on spruce. (Jones).

EUROPEAN PINE SAWFLY (Neodiprion sertifer) - IOWA - Statewide--larvae reported. Substantial defoliation of old needles on Scotch and mugho pines. Pottawattamie and Story Counties--larvae at Council Bluffs and Ames averaged 21 mm and 18 mm (0.83 and 0.71 in) long, respectively. (Lewis).

A SOFT SCALE (Pseudophilippia quaintancii) - FLORIDA - New county record. Dixie County--infested stems of Pinus elliptii (slash pine) near Horseshoe Beach, May 24, 1978. Collected by F.J. McHenry. Determined by A.B. Hamon. (Mead).

BIRCH LEAFMINER (Fenusa pusilla) - NORTH DAKOTA - New county record. Cass County--larvae infested green ash at Fargo. Collected by R. Carlson on May 26, 1978. Determined by E. Balsbaugh. (Balsbaugh, Kopp).

## MAN AND ANIMALS

### INSECTS

HORN FLY (Haematobia irritans) - TEXAS - Counts per head on livestock by county May 26: Hill, Coryell, Bell, McLennan--300-600, Armstrong and Randall--300-400. (Hoelscher, Patrick). NEBRASKA - Dawson and Lincoln Counties--averaged 100-150 per head on untreated cattle in river pastures. (Campbell et al.).

FACE FLY (Musca autumnalis) - NEBRASKA - Dawson and Lincoln Counties--averaged 2-3 per face on untreated cattle in river pastures. (Campbell et al.).

STABLE FLY (Stomoxys calcitrans) - NEBRASKA - Dawson and Lincoln Counties--averaged 1 per leg on untreated cattle in feedlots. (Campbell et al.).

## BENEFICIAL ORGANISMS & THEIR ENEMIES

### INSECTS

A MYMARID WASP (Anaphes flavipes) - Recoveries of 20+% parasitism of Oulema melanopus (cereal leaf beetle) eggs from individual oat fields by State and county May 18-25. OHIO - Licking County--23% in Washington Township and 27% in Eden Township. MARYLAND - Washington County--33% near Clearspring. PENNSYLVANIA - Blair County--33%, 44%, and 27% in North Woodbury Township and 25% and 44% in Taylor Township. (T.L. Burger).

A EULOPHID WASP (Tetrastichus julis) - VIRGINIA - Rockbridge County--parasitized 26% of Oulema melanopus (cereal leaf beetle) larvae recovered from barley field in South River Magisterial District, May 25, 1978. (T.L. Burger).

AN ICHNEUMONID WASP (Bathyplectes curculionis) - COLORADO - Mesa County--parasitized 48% of Hypera postica (alfalfa weevil) in 1 alfalfa field May 15. Bathyplectes stenostigma 1% in same sample. (Merlino).

### WEEDS

A WEEVIL (Rhinocyllus conicus) - COLORADO - Mesa and Larimer Counties--overwintered adults on Carduus nutans (musk thistle) May 12. Some eggs laid. (Mowrer et al.). KENTUCKY - Logan and Warren Counties--about 30 and 25 respectively, released May 30. (Sloderbeck).

## FEDERAL AND STATE PROGRAMS

### DISEASES

STEM RUSTS (Puccinia graminis) - BARLEY TRITICI STEM RUST (P. graminis f.sp. tritici) found on barley in Mesa, ARIZONA, Plant Introduction Nursery, May 18-31. (Kilpatrick). Five isolates of QFB race and 1 isolate of RKQ identified from 2 collections in Obregon, MEXICO. (Roelfs, Long).

WISCONSIN - Dane County--BLACK STEM RUST (P. graminis) aecia light on undersides of leaves of common European barberry. (Lovett).



OAT STEM RUST (P. graminis f.sp. avenae) on oats May 18-31 in central TEXAS nurseries and fields but not as severe or widespread as in 1977. Following races identified from collections received before April 25. Races 31 and 61 identified from wild oat collection at Obregon, MEXICO. (Roelfs, Long).

<u>Location</u>	<u>No. of Collections</u>	<u>No. of Isolates of Oat Stem Rust Races</u>			
		<u>1</u>	<u>2</u>	<u>31</u>	<u>61</u>
TX-Beeville	2			6	
TX-Giddings	4	3	3	2	4
TX-Nixson	1			3	
TX-Tynan	12			28	8

WHEAT STEM RUST (P. graminis f.sp. tritici) increased rapidly on wheat in trap plots in southern and central TEXAS, May 18-31. First wheat stem rust since 1969 in Mesa, ARIZONA, Plant Introduction Nursery. (Kilpatrick). Reported there 5 times in past 37 years. No indication any stem rust in commercial fields in Arizona. Few isolated pustules in south-central KANSAS and north-central OKLAHOMA. Following races identified from collections received before May 31. (Roelfs, Long).

<u>Location</u>	<u>No. of Collections</u>	<u>No. of Isolates of Wheat Stem Rust Races</u>				
		<u>17</u>			<u>151</u>	
		<u>HDB</u>	<u>HJC</u>	<u>HNL</u>	<u>QCB</u>	<u>QFB</u>
MEXICO-Obregon	29	5		7	1	69
TX-Beeville	1	1	2			

## INSECTS

CEREAL LEAF BEETLE (Oulema melanopus) - TENNESSEE - Fentress, Morgan, Putnam, and Macon Counties--larvae on oats. (Gregory, VanLandingham). KENTUCKY - Mercer County--larvae averaged 2.3 per 0.09 sq m (sq ft), ranged 0.7-3.2, in 10 oat fields, eggs very light. (Johnson). NORTH CAROLINA - Total of 54 positive collection sites from wheat and oats, reaching maturity quickly under present heat, in 22 northern counties April 6 to May 22. (Hunt).

VIRGINIA - Richmond County--cereal leaf beetle larvae heavy on spring-planted oats week ending May 26. Hanover County--larval hatch indicated hatch in large area of coastal plains. Hatch coincided well with planned parasite release program. Currently, parasite releases made in 41 counties this period. Parasite complex included Tetrastichus julis (a eulophid wasp), and Diaparsis sp. and Lemophagus curtus (ichneumonid wasps). (Allen).

WEST VIRGINIA - Cereal leaf beetle averages per 0.09 sq m (sq ft) of oats by county: Monroe--eggs 55 and larvae 30, mostly 2nd instars, Kanawha--3rd instar larvae 5. (Moore). MARYLAND - Counts per 10 plants in Howard, Carroll, and Frederick Counties by crop: Barley [headed]--eggs 1 and larvae 1, wheat [boot]--eggs 1 and larvae 2, and oats [late tiller to early stem extension]--eggs 5 and larvae 1. Heaviest at eggs 10 and larvae 2 in 4.1 ha (10 acres) of oats in Frederick County. (Hellman, Pinto).

OHIO - Cereal leaf beetle adults moved from winter wheat to newly emerged young stands of oats. Late instar larval feeding noneconomic on wheat [heading and flowering], caused silvering or leaf feeding damage. Adults mated and laid eggs on young oats. Brown County--eggs 1.3 per oat plant [leaf sheaths strongly erected] May 17, current 1st to 3rd instar larvae 1.15 per plant, damage and eggs present. Montgomery County--adults 0.25 per sweep and eggs 0.83 per plant or 19 per 0.3 row m (row ft) on oats [tillers formed]. Allen, Clark, Clermont, Crawford, Defiance, Gallia, Geauga, Greene, Hancock, Henry, Hocking, Huron, Madison, Marion, Medina, Miami, Paulding, Putnam, Sandusky, Scioto, Seneca, Summit, Vinton, Warren, Wood, and Wyandot Counties--egg parasites released May 23. (Drees).

A GRASS BUG (Labops hesperius) - UTAH - Sanpete County--adults on range in Ephraim Canyon at 2,135-m (7,000-ft) elevation, mostly 3rd and 4th instar nymphs at 2,440-m (8,000 ft). (Haws, Knight). IDAHO - Blaine County--nymphs severely stunted mixed hay grasses at Picabo, May 24. (Hopkins, Stoltz).

GRASSHOPPERS - NEW MEXICO - Hidalgo County--Trimerotropis sp. heavy on about 1,620 ha (4,000 acres) of wheat, no apparent damage. (Durkin). TEXAS - Counts per 0.8 sq m (sq yd) of pastures by county May 26: Southern Collingsworth and northern Childress--12-15, Ochiltree and Hansford--40-50. (Patrick et al.). NORTH DAKOTA - Pembina County--1st and 2nd instar nymphs lightly damaged sunflowers on sandy soil. Cass and Traill Counties--controls applied to field borders. (McBride, Scholl).

GYPSY MOTH (Lymantria dispar) - PENNSYLVANIA - Centre County--3rd instar larvae very light on apple trees at Walker Township, May 26. (Waldvogel). Southeastern counties--spray program started May 19 will continue about 10-14 days; as of May 26, total of 2,673 ha (6,600 acres) treated. (Eckess). NEW HAMPSHIRE - Larvae, 2nd and 3rd instar, at Canterbury infestation site week of May 31. Original 81.0-ha (200-acre) infestation spread to south and southeast this year and encompassed about 203 ha (500 acres). Amount of defoliation undetermined. (Burger).

RANGE CATERPILLAR (Hemileuca oliviae) - COLORADO - Las Animas County--hatch began May 23 in Branson area. Population density unknown. (Keenan).

SCREWORM (Cochliomyia hominivorax) - Total of 98 cases reported from continental United States May 7-13 as follows: Texas 1, New Mexico 8, Arizona 84, California 5. (Meadows). Total of 305 cases confirmed in portion of Barrier Zone in Republic of Mexico. Total of 668 cases reported in Mexico south of Barrier Zone. (Williams, Smith). Number of sterile flies released this period totaled 72,275,100 as follows: Texas 28,706,500, New Mexico 1,638,000, Arizona 39,212,600, California 2,718,000. (Meadows). Total of 143,972,700 sterile flies released within Barrier of Mexico. (Williams, Smith).

## CORRECTIONS

CPPR 3(12):121 - GREEN PEACH APHID (Myzus persicae) - COLORADO - Delete Pueblo County. Change to read Palisade and Vineland, Mesa County....

CPPR 3(22):242 - A MYMARID WASP (Anaphes flavipes) - INDIANA - Change larvae to eggs....

## HAWAII PEST REPORT

General Vegetables - BEAN FLY (Ophiomyia phaseoli) infestations and damage moderate to heavy on 185.8 sq m (2,000 sq ft) of green beans at Naalehu, Hawaii Island. Infestations and damage severe on backyard plantings of pole beans at Waialua and Hawaii Kai, Oahu. (Hirayama et al.).

Fruits and Nuts - New island record for TAHITIAN COCONUT WEEVIL (Diocalandra taitensis). Kauai Island--collected from coconut fruits at Lihue by C. Christiansen, August 14, 1974. Determined by R. Kunishi. (Sugawa).

Ornamentals - New host record for a DIASPIDID SCALE (Duplaspidiotus claviger) for State. Moderate to heavy on Pittosporum tobira (tobira pittosporum) hedge at Diamond Head, Oahu. Damage moderate. (L. Nakahara).

### DETECTION

#### NEW COUNTY AND ISLAND RECORDS

#### INSECTS

BIRCH LEAFMINER (Fenusa pusilla) - NORTH DAKOTA - Cass. (p. 257).

A SOFT SCALE (Pseudophilippia quaintancei) - FLORIDA - Dixie. (p. 256).

TAHITIAN COCONUT WEEVIL (Diocalandra taitensis) - HAWAII - Kauai. (p. 260).

[illegible]

## LIGHT TRAP COLLECTIONS

[illegible]



# Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff  
Plant Protection and Quarantine Programs, USDA

	<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Destination</u>
<u>Puccinia grahami</u> Cunningham a rust Det. F.G. Pollack	telial	on leaves of <u>Aciphyllia</u> plants	New Zealand	Honolulu	WA
<u>Puccinia horiana</u> Henn. white rust of <u>chrysanthemum</u> Det. F.G. Pollack	telial	on leaves of <u>Chrysanthemum</u> in post-entry quarantine	Japan	Beltsville	MD
<u>Chortinaspis</u> sp. an armored scale Det. S. Nakahara	adult	on <u>Tillandsia</u> plants from cargo	Peru	Los Angeles	CA
<u>Conotrachelus aguacatae</u> Barber a weevil Det. B.K. Dozier	larval	in avocados from baggage	Mexico	San Diego	CA
<u>Cryptotermes brevis</u> (Walker) a termite Det. R. Munkittrick	all	in dunnage with cylinders	Midway Island	San Francisco	CA
<u>Diaxenes</u> sp. a cerambycid beetle Det. D.M. Anderson	larval	in leaves of <u>Dendrobium</u> plants from cargo	Thailand	Miami	AL
<u>Trogoderma granarium</u> Everts Khapra beetle Det. J.M. Kingsolver	larval	with bags of guar gum	India	Port Arthur	TX
<u>Veronicella luzonica</u> Gray a veronicellid slug Det. R. Munkittrick	adult	on <u>Platyserium</u> plants from cargo	Philippines	San Francisco	CA











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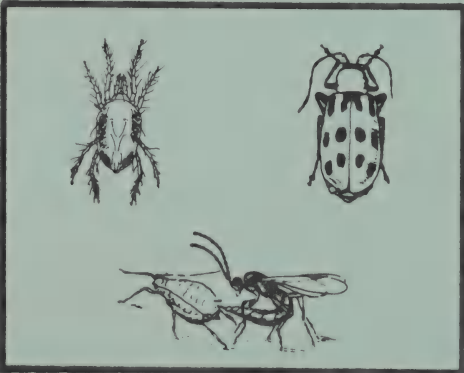
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Vol. 3 No. 24

June 16, 1978

# Cooperative PLANT PEST REPORT

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This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

*Cooperative Plant Pest Report* supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

*Correspondence should be directed to:*

*CPPR*

New Pest Detection and Survey Staff  
Plant Protection and Quarantine Programs  
Animal and Plant Health Inspection Service  
U.S. Department of Agriculture  
Federal Building #1  
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## COOPERATIVE PLANT PEST REPORT

### HIGHLIGHTS

#### Current Conditions

EUROPEAN CORN BORER egg masses 1 or more per corn plant in parts of west-central Missouri and southern Illinois. (p. 267).

BLACK CUTWORM caused stand loss to corn and sorghum in parts of Kansas, Mississippi, Wisconsin, North Carolina, and Maryland. (p. 267-268).

ALFALFA WEEVIL 30 or more per sweep of alfalfa in parts of Nevada, Colorado, and Wisconsin. (p. 272-273).

#### Detection

A LADY BEETLE is new for Oklahoma. (p. 278).

For new county records see page 280.

Reports in this issue are for the week ending June 9 unless otherwise indicated.

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## CORN, SORGHUM, SUGARCANE

### INSECTS

EUROPEAN CORN BORER (*Ostrinia nubilalis*) - NEBRASKA - Northeast district--first adults in light traps in Dixon County on June 3 and averaged 25 per night through June 7. (Witkowski). Eastern one-third area--adults active. Corn too small to support larvae. Very light first generation infestation possible as continued cool weather will favor adult survival. (Cranfill et al.).

MISSOURI - European corn borer status on earliest corn by county week ending June 3: West-central and southwestern--adults active in all of earliest corn checked; Jasper--egg masses averaged 5 per 100 plants [46-51 cm (18-20 in) extended leaf height]; and Bates--egg masses averaged 250 per 100 plants [61 cm (24 in) extended leaf height]. (Munson).

ILLINOIS - European corn borer between State Highway 13 and U.S. Highway 36--eggs heavy on corn. South of State Highway 13--hatch almost completed, few plants over 76 cm (30 in) tall. Southern one-third area--adults heavy and egg masses 1 per plant. Lawrence County--egg masses 3 per plant [61 cm (24 in)]. Western area--lighter than in east-southeastern and southeastern areas, probably due to microsporidian disease in overwintered larvae. (Black).

WISCONSIN - Southern areas--European corn borer adults moderate in blacklight traps and very heavy on dense foliage of peas, oats, and mint. Dane County--egg laying underway, egg masses on about 5% of corn near Mazomanie. Almost no field corn tall enough to sustain larvae yet. (Lovett).

MARYLAND - Lower Eastern Shore counties--1st to 3rd instar European corn borer appeared in field corn whorls, damage less than 10%. (Hellman, Pinto).

BLACK CUTWORM (*Agrotis ipsilon*) - NEBRASKA - Southeast district--many damaging infestations on corn. Nemaha County--cut or fed on 5% of plants in 6 fields. Larvae, 0.64-3.18 cm (0.25-1.25 in) long, ranged 3-10 per 3.1 row m (10 row ft). Moist soil kept cutworms near surface. Controls effective. (Shires, Miller). South, central, southeast, east, and northeast districts--black cutworm, DINGY CUTWORM (*Feltia ducens*), and DARKSIDED CUTWORM (*Euxoa messoria*) damage economic on corn in scattered locations. (Roselle et al.).

KANSAS - Black cutworm status by county: Republic--all larval stages present, destroyed sorghum field to be replanted; Jefferson, Jackson, and Mitchell--damaged sorghum; and Sedgwick--larvae, mainly 0.64-3 cm (0.25-1 in) long, 4-5 per 100 corn plants [3-leaf] damaged 8% of plants in 1 field, treatment expected, none in 4 other corn fields [20-25 cm (8-10 in) tall]. (Bell).

MISSOURI - Black cutworm status by area week ending June 3: Southern, central, and northwestern--larvae reported; central pest management area--damaged 0.4-16.6% of corn; northwestern--5th instar larvae light in 2 fields. (Munson). MISSISSIPPI - Oktibbeha County--stand reduction 80-95% on 1 ha (3 acres) of corn and 11 ha (27 acres) of grain sorghum. Sorghum 10-15 cm (4-6 in) tall. (Combs).

WISCONSIN - Damage by county: scattered areas--mostly black cutworm severely damaged corn previously in sod or alfalfa and in low-lying fields; Oconto County--over 203 ha (500 acres) replanted and another 203 ha treated; Wood, Walworth, Trempealeau, Jackson, Green Lake, Waupaca, Door, and Rusk Counties--reported. (Lovett).

OHIO - Wayne County--black cutworm cut about 3-5% of corn in 1 field, treated. (Clement et al.). NORTH CAROLINA - Damage by black cutworm and GRANULATE CUTWORM (*Feltia subterranea*) to corn by county: North-central Piedmont area--stand reduction 30%; Bladen, Martin, and Washington--stand loss 10-30% in scattered fields. Corn plants 0.6 m (2 ft) tall killed. (Dunham, Pleasants). MARYLAND - Dorchester, Queen Annes, and Caroline Counties--cut up to 30% of corn plants, mainly at field edges and in poorly drained areas. (Hellman, Pinto).

CORN EARWORM (*Heliothis zea*) - NORTH CAROLINA - Coastal and Piedmont areas--first generation larvae in whorls of corn. Damage light in most fields. Halifax and Bladen Counties--damaged about 30% of plants. (Peedin, Morris). DELAWARE - Sussex County--2-3 per night in blacklight trap in corn. (Burbutis, Kelsey).

FALL ARMYWORM (*Spodoptera frugiperda*) - FLORIDA - Alachua County--still very light all spring in and around Gainesville area; adults in pheromone traps northwest of Gainesville still averaged less than 1 per trap per night. (Mitchell).

STALK BORER (*Papaipema nebris*) - MARYLAND - Damage to corn by county: Carroll, Baltimore, and Queen Annes--along field margins and in weedy areas in no-till field, Baltimore--95% of 4.1-ha (10-acre) field. (Hellman, Pinto).

POTATO STEM BORER (*Hydroecia micacea*) - NEW YORK - New county record. Monroe County--larvae in field corn at Hamlin, June 7, 1978. Collected by N. Herendeen. Determined by C. Kears and H. Willson; confirmed by J. Franclemont. Stand reduction 10-15% in 1 field and less than 10% in nearby fields. Nearest infestation in St. Lawrence County, about 193 km (120 miles) away. (Willson).

CORN ROOTWORMS (*Diabrotica* spp.) - MISSOURI - *Diabrotica* sp. status by county week ending June 3: Southwestern and west-central areas--hatched; Jasper, Vernon, and Bates--larvae on volunteer corn. (Munson). OHIO - Pickaway County--first specimens of SOUTHERN CORN ROOTWORM (*D. undecimpunctata howardi*) on corn June 5. (Drees).

MAIZE BILLBUG (*Sphenophorus maidis*) - MARYLAND - Caroline County--damage reduced corn height by half on 60% of plants in 4.1 ha (40 acres). (Hellman, Pinto).

GREENBUG (*Schizaphis graminum*) - TEXAS - Counts on sorghum by county June 1-2: Williamson and Milam--light, Bell and Falls--decreased, Comanche--25 per plant, and Hill and Johnson--increased. (Moore et al.). OKLAHOMA - Texas County--infestations on seedling forage sorghum last period eliminated by heavy rains week of June 2. (Arnold). MISSOURI - Southwestern and west-central areas--in 2% of seedling sorghum fields checked week ending June 3. Infested 16% and 100% of 2 fields of sorghum [4-6 leaves], small colonies on 80% of plants in latter field. (Munson). NEBRASKA - Kearney County--damaged seedling sorghum. (Peters).

CORN LEAF APHID (*Rhopalosiphum maidis*) - NEW MEXICO - Counts on corn by county: De Baca--scattered and light in 4 fields in Ft. Summer area; Curry, Roosevelt, and Lea--reduced significantly, possibly by heavy rains. (Nielsen).

YELLOW SUGARCANE APHID (*Sipha flava*) - ILLINOIS - Pope County--1 beginning colony on sorghum [25 cm (10 in) tall] at Dixon Springs, potentially serious sorghum pest. (Black).

CHINCH BUG (*Blissus leucopterus leucopterus*) - MISSISSIPPI - Counts on corn by county: Pike--heavy on 40.5 ha (100 acres) and Newton--heavy on 17 ha (43 acres). (Anderson). OKLAHOMA - Payne County--averaged 2 per sorghum plant [20 cm (8 in) tall] week of June 2. (Arnold).



## WEEDS

REDROOT PIGWEED (*Amaranthus retroflexus*) - MARYLAND - Carroll County--atrazine resistant strain becoming problem in no-till corn. (Hellman, Pinto).

## **SMALL GRAINS**

### DISEASES

WHEAT LEAF RUST (*Puccinia recondita* f.sp. *tritici*) - OKLAHOMA - Garfield, Kay, Noble, and Payne Counties--severity 40-60% on flag leaf of Triumph type wheats by May 26. (Williams, Pyzner). KANSAS - Wheat leaf rust statewide--buildup very slow on wheat week of June 2. Prevalence/severity by county: Clay--trace to 20%/trace to 5%, Washington--trace/trace, Republic--15%/trace to 5%, Ottawa--10%/trace to 5%, Saline--100%/5-25%, Dickinson--80%/5%, Shawnee--100%/25%, Sedgwick--100%/25-65%, Seward--100%/10-40%, Stevens--80-100%/25-40%, Grant--100%/25-40%, and Morton--30-100%/10-25%. Current buildup rapid in some areas; some losses where heavy. Current prevalence/severity: Pottawatomie--60%/25%, Nemaha--100%/25%, Jackson--10%/trace, Brown--trace/trace, Doniphan--20-40%/25%, Atchison--10%/10%, Leavenworth--60%/10%; prevalence not recorded in following counties, severity on flagleaf: Ellis--10%, Rush--5-10%, Rooks--trace to 5%, Osborne--1-5%, Mitchell--trace to 20%, Lincoln--1-10%, Ottawa--5%, Riley--40%, Clay--5-40%, and Greenwood--80-90%. (Sim).

MISSOURI - Lawrence County--wheat leaf rust prevalence 10%/severity trace on wheat [milky] in variety trial plots on 5 of 28 commercial cultivars week of May 31. (Foudin).

WHEAT POWDERY MILDEW (*Erysiphe graminis* f.sp. *tritici*) - OKLAHOMA - Eastern area--still very prevalent on wheat by May 26. (Williams, Pyzner). KANSAS - Prevalence (severity moderate to heavy) on thick-seeded wheat by county: Pottawatomie--80%, Atchison--100%, and Leavenworth--100%. (Sim). MISSOURI - Lawrence County--prevalence 100%/severity trace to 5% on wheat [milky] in variety trial plots week of May 31. (Foudin).

MICHIGAN - Wheat powdery mildew prevalence/severity on wheat [heading unless stated otherwise] by county (1 commercial field each): Ionia--trace [flowering], Kent--trace; Muskegon--80-90%/25-30% on lower leaves [boot], Newaygo--5-10%/5-7%, Montcalm--75-80%/5-10% on lower leaves [boot], Saginaw--30-35%/15-20% on lower leaves, and Tuscola 55-60%/10-20% on lower leaves and stems. (Singh).

CEPHALOSPORIUM STRIPE (*Cephalosporium gramineum*) - KANSAS - Prevalence on wheat by county week of June 2: Republic--trace to 2%; Clay, Cloud, and Ottawa--trace; and Washington--trace to 3%; currently: Nemaha--2% and Jackson--trace. (Sim). MICHIGAN - Prevalence of disease on wheat by county (1 commercial field each): Ionia--trace [flowering], Kent--1% [heading], Tuscola--5% [heading], and Sanilac--trace [boot]. (Singh).

LOOSE SMUT (*Ustilago nuda*) - KANSAS - Clay and Dickinson Counties--traces on wheat week of June 2. (Sim). MISSOURI - Lawrence County--prevalence/severity trace on wheat [milky] in variety trial plots, appeared on only 1 commercial cultivar, week of May 31. (Foudin). ILLINOIS - Sangamon and Macoupin Counties--on few scattered wheat [beginning of flowering] plants in 1 commercial field week of May 29. (Jordan). WISCONSIN - First of season. Rock County--trace on winter wheat June 5. (Lovett).

LEAF BLOTCHES (*Septoria* spp.) - MISSOURI - Lawrence County--prevalence 90-100%/severity 5-8% on wheat [milky] in variety trial plots week of May 31. (Foudin).



WISCONSIN - Leaf blotch in Green and Rock Counties--Septoria prevalence 17% and 20%/severity 1-2% in 2 winter wheat fields. (Lovett). MICHIGAN - Prevalence/severity on lower leaves of wheat [heading unless stated otherwise] by county (1 commercial field each): Ionia--trace [flowering], Kent--3-5%/1-2%, Newaygo--1-2%/1-2%, Saginaw--trace, Tuscola--5-7%/1-2%, and Sanilac--trace [boot]. (Singh).

SPECKLED LEAF BLOTCH (Septoria tritici) - KANSAS - Common statewide on wheat week of June 2; Prevalence by county: Clay--100% and Washington--80-100%, Republic--100%, Cloud--80-100%, Dickinson--40%, and Ottawa--80%; currently: Pottawatomie, Jackson, Nemaha, Doniphan, Atchison, and Leavenworth--100%. (Sim). ILLINOIS - Prevalence/severity on commercial wheat [beginning of flowering] by county week of May 29: Sangamon--100%/30-40%, Bond--100%/15-20%, Macoupin--100%/25-30%, and Madison--100%/25-35%. (Jordan).

SEPTORIA GLUME BLOTCH (Leptosphaeria (Septoria) nodorum) - ILLINOIS - Madison County--on few scattered plants in 1 commercial wheat [beginning of flowering] field week of May 29. (Jordan).

TAKE-ALL (Gaeumannomyces graminis var. tritici) - KANSAS - Extended on wheat from southern border to northern border through central area. Prevalence in wheat by county week of June 2: Republic--traces in 1 field, and Sedgwick--3-20% in fields surveyed; currently: Pottawatomie, Lincoln, and Mitchell--traces. (Sim).

EYESPOT (Pyrenophora trichostoma) - KANSAS - Common on wheat statewide week of June 2; prevalence by county--Clay--80%, Washington--80-100%, Republic--100%, Cloud--30-60%, Dickinson--50%, and Ottawa--0. (Sim).

WHEAT LEAF NECROSIS (Pseudomonas syringae) - KANSAS - Prevalence in wheat by county week of June 2: Cloud--1%, Riley--5%, and Reno--80%. (Sim).

BLACK CHAFF (Xanthomonas translucens f.sp. undulosa) - KANSAS - First of season. Harvey County--found in wheat field week of June 2. (Sim).

BARLEY YELLOW DWARF LUTEOVIRUS - KANSAS - Prevalence on oats by county: Republic--20% in 1 field week of June 2; currently in Leavenworth, Riley, Geary, Clay, Osborne, and Dickinson--moderate to severe. Currently most widespread oat disease in State. Most infections occurred about 14 days ago when aphid vector populations heavy. Prevalence in wheat by county week of June 2: Riley--trace, Clay--15%, Republic--30%, and Cloud--trace; current prevalence: Pottawatomie, Nemaha, Brown, and Atchison--trace. Currently obvious in many wheat fields in northeastern area. (Sim).

WISCONSIN - Barley yellow dwarf luteovirus symptoms in barley in Trempealeau County and oats in Trempealeau, La Crosse, Monroe, Dodge, Marquette, Waushara, Green Lake, Dane, Green, Rock, Grant, and Iowa Counties--red leaf prevalence trace to 2%. (Lovett).

WHEAT SPINDLE STREAK MOSAIC VIRUS - MICHIGAN - Prevalence of symptoms on lower leaves of wheat by county (1 commercial field each): Ionia--70-80% [flowering], Kent--40-50% [heading], and Tuscola--70-80% [heading]. (Singh).

WHEAT STREAK MOSAIC VIRUS - KANSAS - Ellis, Rush, Rooks, Osborne, and Lincoln Counties--no severely infected wheat fields. (Sim).

## INSECTS

ARMYWORM (Pseudaletia unipuncta) - OKLAHOMA - Counts on wheat by county week of June 2: Kay, Noble, Grant--moderate in scattered fields; Washita and Custer--decreased rapidly, up to 2 per 0.09 sq m (sq ft); and Canadian, Cleveland, Oklahoma, and Ellis--scattered infestations. Head clipping very rare in most areas. (Arnold). ILLINOIS - White County--larvae averaged 7 per 0.3 row m (row ft) in thickest parts of wheat field. (Black).

MARYLAND - Armyworm larvae by county: Dorchester--various instars up to 8-12 per 0.3 row m (averaged 2 per 2 row m (5 row ft)) on barley [hard dough] in 2 hotspots at Cambridge and Vienna, head clipping not significant but 1,620 ha (4,000 acres) treated; and Eastern Shore counties--averaged less than 1 per 2 row m of wheat [milky]. (Hellman, Pinto).

HESSIAN FLY (Mayetiola destructor) - KANSAS - Mitchell County--1-5 per tiller, lodged up to 10% of tillers in wheat field. (Bonzckowski).

## **TURF, PASTURES, RANGELAND**

### DISEASES

BROWN STRIPE (Scolecotrichum graminis) - WISCONSIN - Crawford County--moderately infected orchardgrass in field. (Lovett).

## INSECTS

VARIEGATED CUTWORM (Peridroma saucia) - KANSAS - Labette County--defoliated and clipped heads off brome grass in pasture. (Kilgore).

CHINCH BUG (Blissus leucopterus leucopterus) - OHIO - First of season. Wayne County--nymphs in lawns. (Niemczyk).

MEADOW PLANT BUG (Leptopterna dolabrata) - MISSOURI - South-central, southwestern, and west-central areas--adults 0-15 per 100 sweeps week ending June 3. (Munson).

## **FORAGE LEGUMES**

### DISEASES

SPRING BLACK STEM (Phoma medicaginis) - KANSAS - Northern area--still affected first growth of alfalfa week of June 2. Pottawatomie and Republic Counties--affected 100% of plants in single fields. (Sim).

SUMMER BLACK STEM (Cercospora zebrina) - KANSAS - First of season in State. Prevalence on alfalfa by county: Pottawatomie and Republic--trace week of June 2 and Leavenworth--currently 10% in 1 field. (Sim).

LEPTOSPHERULINA LEAF SPOT (Leptosphaerulina briosiana) - KANSAS - Northeastern area--most common disease on second growth alfalfa; prevalence (severity moderate) by county: Pottawatomie--60%, Leavenworth--100%, and Jefferson--100%. (Sim).

STEMPHYLIUM LEAF BLIGHT (Stemphylium botryosum) - KANSAS - Republic County--prevalence 10% in 1 alfalfa field week of June 2. (Sim).

COMMON LEAF SPOT (Pseudopeziza medicaginis) - KANSAS - Pottawatomie County--traces in 1 alfalfa field week of June 2. (Sim).

ALFALFA DOWNY MILDEW (*Peronospora trifoliorum*) - KANSAS - Wabaunsee and Republic Counties--trace in several alfalfa fields week of June 2. (Sim).

## INSECTS

ALFALFA WEEVIL (*Hypera postica*) - CALIFORNIA - Fresno County--larvae up to 35 and adults up to 15 per 25 sweeps of alfalfa at Kingsburg. (Dunnegan).

NEVADA - Alfalfa weevil status on hay alfalfa by county week ending June 2: Esmeralda--larvae 30-50 per sweep at north end of Fish Lake Valley (Hartman); and Douglas--larvae damaged 50% of tips in scattered fields (Peterson). Current larvae per sweep by county: Pershing--larvae up to 60 on seed alfalfa at Lovelock; Humboldt--up to 7 on seed alfalfa at Oroville (Lauderdale); and Elko--25 on hay alfalfa in Clover Valley (Peters).

UTAH - Alfalfa weevil larvae by county: Cache--lighter than normal, only few alfalfa fields treated before cutting and most early cut fields may not need stubble spray; central area--generally lighter than normal, much of crop cut (Davis, Knowlton); and Beaver--larvae developing, controls not yet necessary (Esplin). MONTANA - Status on forage by county week of June 2: Custer--1st to 3rd instar larvae damaged 50% of leaflets; and Gallatin--adults laid eggs. (Jensen).

NEW MEXICO - Alfalfa weevil adults and larvae per sweep of alfalfa (and number of fields) by county: Southern Eddy--2-26 and 0-8, larvae heavier in Malaga area (30); Lea--0-7 and 0-9 (17); Roosevelt--0-13 and 0-3 (6); and De Baca--2-27 and 0-9 (12). (Nielsen).

COLORADO - La Plata County--larvae 53 per sweep of alfalfa May 31 to June 6. (Hantsbarger). OKLAHOMA - Counts per 10 sweeps of alfalfa by county: Logan--larvae 20-30 and adults 20-25 in 1 area May 30, unusually late for State; Grady--adults 8-10; and Stephens--24. (Arnold).

NORTH DAKOTA - McKenzie County--early instar alfalfa weevil larvae, 500 per 100 sweeps on first growth irrigated alfalfa, damaged up to 100% of alfalfa tips [late bud to early bloom]. (Brandvik). MINNESOTA - Houston County--feeding damage on alfalfa. Fillmore, Mower, and Olmsted Counties--larvae trace on alfalfa. First cutting underway. Last known occurrence was trace populations in south-central and southeast districts in 1975. No buildup on second growth alfalfa. (Sreenivasam).

WISCONSIN - South-central and southwestern areas--alfalfa weevil larvae still heavy on alfalfa, 20-100 per sweep. Damage slight to severe with worse damage in lower Wisconsin River Valley. Most larvae in last 2 instars; counts and feeding should decrease next period. Status by county: Dane, Iowa, and Lafayette--cocoons light; Dane and Lafayette--overwintered adults up to 4 per sweep; Dodge, Washington, Sheboygan, Manitowoc, Kewaunee, and Door--larvae, mostly 1st instars, heavy, 6-35 per sweep and tip damage 10-100% with many fields in Door County having 100%; tip feeding will increase and become more evident next period. Heavy adult populations in Door and Kewaunee Counties suggested egg hatch may be extended. Central Sands area and Shawano County--larvae light. (Lovett).

MARYLAND - Carroll County--large alfalfa weevil larvae still on second growth alfalfa, controls applied; Carroll, Baltimore, and Washington Counties--tip damage more than 50% in some second growth fields. (Hellman, Pinto).



ALFALFA BLOTCH LEAFMINER (Agromyza frontella) - OHIO - Ashtabula and Trumbull Counties but not Lake County--adults active on forage legumes. (Drees). MAINE - Adults still heavy, 5-8 per sweep. Leaves riddled with pinholes, but very few active mines. (Gall).

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - ARIZONA - Pinal County--adults 21 per 100 sweeps of alfalfa. (Davis et al.). NEVADA - Averages of blue alfalfa aphid and PEA APHID (A. pisum) per sweep of alfalfa by county week ending June 2: Douglas--500, mostly blue alfalfa aphid, on 81.0 ha (200 acres) of hay alfalfa in Minden and Gardnerville areas (Peterson); Fish Lake Valley, Esmeralda County, and Mason Valley, Lyon County--both increased rapidly on hay alfalfa (Hartman, Pursell); and Humboldt--both 35 on seed alfalfa in Grass Valley (Stockton). UTAH - Beaver County--blue alfalfa aphid areas very severe: 70% of alfalfa in Minersville area sprayed and outbreak worse in Milford area. (Esplin et al.).

PEA APHID (Acyrtosiphon pisum) - NEVADA - Counts of this species and BLUE ALFALFA APHID (A. kondoi) per sweep by county: Pershing--mostly pea aphid 60-440 on seed alfalfa at Lovelock; Humboldt--pea aphid 4-18 on seed alfalfa at Orovada (Lauderdale et al.); Elko--pea aphid averaged 8 on hay alfalfa in Clover Valley (Peters); and Lander--pea aphid and A. kondoi, equally, 15-76 on seed alfalfa in Reese River. (Stitt).

OKLAHOMA - Muskogee County--pea aphid averaged 50 per 10 sweeps of alfalfa week of June 2. (Arnold). WISCONSIN - Southern one-third area and along shore of Lake Michigan--6 per 50 sweeps to 5 per sweep of alfalfa. (Lovett).

SPOTTED ALFALFA APHID (Therioaphis maculata) - NEVADA - Humboldt County--first of season. Occasional specimens in 1 seed alfalfa field at Jungo. (Stitt). NEW MEXICO - De Baca County--light in most alfalfa fields in Ft. Summer area. (Nielsen).

POTATO LEAFHOPPER (Empoasca fabae) - MINNESOTA - First of season. Fillmore County--adults averaged 2 per 100 sweeps of alfalfa. (Sreenivasam). MARYLAND - Statewide--surveys negative. (Hellman, Pinto).

BEE T LEAFHOPPER (Circulifer tenellus) - CALIFORNIA - Fresno County--adults light on commercial alfalfa in Caruthers area. (Dunnegan).

ALFALFA PLANT BUG (Adelphocoris lineolatus) - WISCONSIN - Southern one-third area--nymphs averaged 2-8 per sweep in many alfalfa fields. (Lovett). INDIANA - Northeast and north-central districts--nymphs heavy in all alfalfa fields swept. (Meyer).

TARNISHED PLANT BUG (Lygus lineolaris) - OKLAHOMA - Muskogee County--averaged 30 per 10 sweeps of alfalfa week ending June 2. (Arnold).

LYGUS BUGS (Lygus spp.) - NEVADA - Counts per sweep of seed alfalfa by county: Lander--adults and nymphs 1-5 in Reese River (Lauderdale, Stitt); Humboldt--averaged 1 at Orovada (Lauderdale); Pershing--averaged 1-7 at Lovelock (Lauderdale, Stitt). COLORADO - La Plata County--43 per sweep of alfalfa May 31 to June 6. (Hantsbarger).

BROWN WHEAT MITE (Petrobia latens) - NEVADA - Counts on seed alfalfa by county: Humboldt--heavy at Jungo where irrigation underway and Pershing--spotted in fields at Lovelock. (Lauderdale).

## SOYBEANS

### INSECTS

DINGY CUTWORM (Feltia ducens) - SOUTH DAKOTA - Southeastern area--small larvae of mostly this cutworm species heavy on soybeans, usually not a problem. (Walgenbach).

A NOCTUID MOTH (Feltia subgothica) - INDIANA - Jasper County--larvae caused replanting of 8.1 ha (20 acres) of soybeans in a field. (Godfrey).

BLACK CUTWORM (Agrotis ipsilon) - NEBRASKA - Seward County--larvae averaged 0.75 per 0.3 row m (row ft) in soybean field, damaged less than 5% of plants. (Roselle, Miller).

BEAN LEAF BEETLE (Cerotoma trifurcata) - ILLINOIS - Damage widespread, less than 5-10% defoliation on soybeans [1st through 3rd trifoliate]. Gallatin County--beetles about 7 per 3.1 row m (10 row ft) and defoliation averaged 20-30% on soybeans [3rd trifoliate]. (Black).

MEXICAN BEAN BEETLE (Epilachna varivestis) - OHIO - Pickaway County--adults fed on soybeans [2 leaf], females ready to lay eggs. (Drees).

SEEDCORN MAGGOT (Hylemya platura) - MARYLAND - Queen Annes County--second brood caused 40% stand reduction in 2 ha (5 acres) of experimental soybean plots. (Hellman, Pinto).

## PEANUTS

### INSECTS

TOBACCO THRIPS (Frankliniella fusca) - FLORIDA - Jackson County--generally heaviest of last 5-10 years on peanuts near Marianna. Increased in flowers; decreased some on buds. Some damage to each leaflet in unsprayed peanut field. (Tappan).

## COTTON

### INSECTS

BOLL WEEVIL (Anthonomus grandis grandis) - TEXAS - Statewide--light in all areas. Status on cotton by county June 2: Cameron--damaged squares 0-20 per 100 plants, Hidalgo--damaged squares 0-21 per 100 plants, Willacy--damaged squares 0-30 per 100 plants, Kleberg--damaged squares 0-25%, Nueces--damaged squares 0-16%, San Patricio--damaged squares 0-19%, lower gulf coast area--first generation present, south-central area--adults few in traps, and north-central area--adults light. (Cocke et al.).

OKLAHOMA - Boll weevil in cotton by county May 24 to June 1: Jackson--181 in 85 pheromone traps, Harmon--39 in 13 traps, Tillman--5 in 10 traps, and Kiowa--108 in 32 traps. (Arnold).

BOLLWORMS (Heliothis spp.) - ARIZONA - BOLLWORM (H. zea) counts on cotton by county: Yuma--eggs 2 per 20 plants and Pinal--nymphs 6 and adults 10-12 per 100 plants. (Pilling).

TEXAS - H. zea and TOBACCO BUDWORM (H. virescens) eggs, larvae, and damaged squares per 100 cotton plants by county June 2: Cameron--0-35, 0-16, and 0-20; Hidalgo--0-49, 0-16, and 0-20; Willacy--0-30, 0-6, and 0-3. Eggs and larvae per 100 cotton terminals and percent damaged squares by county June 1-2: Kleberg--0-25, 0-4, and 0-35%; Nueces--0-19, 0-2, and 0-29%; San Patricio--0-11, 0-4, and 0-19%; Bell and Falls--up to 8, up to 4, and -; and Williamson and Milam--5-128, 0-23, and 2-33%. (Parker et al.).

STALK BORER (Papaipema nebris) - MISSISSIPPI - Bolivar County--larvae infested about 10% of plants on 0.6 ha (1.5 acres) of cotton. (Simpson, Young).

COTTON FLEAHOPPER (Pseudatomoscelis seriatus) - TEXAS - Status on cotton by county June 1-2: Nueces and Refugio--economic; Bell and Falls--up to 27 (10-20) per 100 terminals; Hill and Johnson--0-60; and Ellis and Navarro--increased, 2-44 per 100 terminals. (Doggett et al.).

LYGUS BUGS (Lygus spp.) - ARIZONA - Counts per 100 sweeps of cotton by county: Maricopa--2-16 adults and 4-5 nymphs, Yuma--adults 50-200 (50 sweeps), and Pinal--adults 5-6 and nymphs 2-4. (Roney et al.).

## TOBACCO

### INSECTS

BLACK CUTWORM (Agrotis ipsilon) - NORTH CAROLINA - Status on tobacco by county: Northern Piedmont counties--damage by this species, mostly, and GRANULATE CUTWORM (Feltia subterranea) concentrated in this area; Coastal Plains area--heavy in few fields; from Yadkin County to Pitt and Martin Counties--stand loss up to 35%, damage appeared scattered and most common in poorly drained, late-set fields; Wake to Stokes--infested average of less than 5% of plants in 11 fields; Person--severe countywide, damaged up to 70% of plants on 0.8 ha (2 acres), infestations of 20-40% common. (Southern et al.).

TOBACCO BUDWORM (Heliothis virescens) - FLORIDA - Suwannee County--damage to untreated tobacco at Live Oak decreased from 85% May 17 to 45% May 31. (Tappan). NORTH CAROLINA - Tobacco fields at threshold of 10% by county: Martin and Washington--about 3 of 123 ha (8 of 300 acres), Bladen--17 of 160 fields on about 405 ha (1,000 acres), heaviest infestation at 17.5% of plants. (Pleasants, Dunham).

TOBACCO HORNWORM (Manduca sexta) - NORTH CAROLINA - Bladen County--larvae 3 cm (1 in) long or more on 25% of tobacco plants, 1 of 160 fields above threshold level. (Dunham).

## SUGAR BEETS

### INSECTS

SUGARBEET ROOT MAGGOT (Tetanops myopaeformis) - NORTH DAKOTA - Adults on sugarbeets by county: McKenzie--1 per 3.1 row m (10 row ft) (Brandvik); Pembina--56 on traps June 3 (Voorhees).



## POTATOES, TOMATOES, PEPPERS

### INSECTS

POTATO LEAFHOPPER (Empoasca fabae) - WISCONSIN - First of season. Waushara County--1 per 100 sweeps of potatoes June 7. (Lovett).

## BEANS AND PEAS

### INSECTS

PEA APHID (Acyrtosiphon pisum) - OREGON - Unusually heavy this spring. Marion County--about 500-700 per 25 sweeps in 30.4 ha (75-acre) pea field near Hopmere, 100+ per terminal on some plants. Averaged 200-300 per 25 sweeps in many samples. (Collins). WISCONSIN - Counts on peas by area: Dodge County--2 winged and wingless aphids per 10 sweeps; and Central Sands and Spring Green area--0. (Lovett).

## COLE CROPS

### INSECTS

CABBAGE LOOPER (Trichoplusia ni) - OKLAHOMA - Wagoner County--larvae averaged 50 per plant on cabbage, brussel sprouts, broccoli, and cauliflower in garden week of June 2. (Arnold).

IMPORTED CABBAGEWORM (Pieris rapae) - OHIO - Wayne County--first of season larvae, 22 mm (0.87 in) long, on younger leaves of cabbage in garden June 7. (Frost).

## DECIDUOUS FRUITS AND NUTS

### INSECTS

FALL CANKERWORM (Alsophila pometaria) - OHIO - Ashtabula County--larvae, 22 mm (0.87 in) long, seriously defoliated crabapple, elm, white poplar, and cherry trees. Trees appeared ragged, crabapples damaged most. Larvae 1-3 on each tip or twig examined. Will migrate to ground to pupate soon. (Drees).

ORIENTAL FRUIT MOTH (Grapholitha molesta) - OKLAHOMA - Wagoner County--adults 1-100+ (averaged 26) per trap in 6 pheromone traps in 3 peach orchards May 26-29. (Arnold).

CODLING MOTH (Laspeyresia pomonella) - WISCONSIN - Door County--first adult of season in pheromone trap June 5; Dane County--first adult at light June 6. (Lovett).

APPLE MAGGOT (Rhagoletis pomonella) - WISCONSIN - Ashland County--first adult of season in bait trap at Ashland. (Lovett).

BLACK CHERRY APHID (Myzus cerasi) - UTAH - Box Elder, Davis, and Salt Lake Counties--conspicuously curled sweet cherry foliage in some orchards, some growers sprayed twice. (Knowlton).

EUROPEAN RED MITE (Panonychus ulmi) - NEW YORK - Wayne and Monroe Counties--females matured and egg laying underway. (Way, Beers).

SHOT HOLE BORER (Scolytus rugulosus) - CALIFORNIA - Fresno County--adults 50 per almond branch, damage noticeable in orchard, limited distribution at Raisin City (Dunnegan); Sutter County--larvae heavy on plums at Yuba City (Anderson).

PECAN NUT CASE BEARER (Acrobasis nuxvorella) - TEXAS - Comanche County--damaged pecans up to 65%, egg laying completed June 2. (Moore).

## CITRUS

### INSECTS

SCALES - FLORIDA - New county records. Dixie County--CITRUS SNOW SCALE (Unaspis citri), PURPLE SCALE (Lepidosaphes beckii), GLOVER SCALE (Lepidosaphes gloveri), CHAFF SCALE (Parlatoria pergandii), and BROWN SOFT SCALE (Coccus hesperidum) adults infested leaves of various Citrus spp., C. aurantium, and C. sinensis at Suwannee, May 22, 1978. Collected by F.J. McHenry, C.B. Lieberman, and C.H. Webb. Determined by A.B. Hamon. (Mead).

## SMALL FRUITS

### INSECTS

WESTERN GRAPELEAF SKELETONIZER (Harrisina brillians) - CALIFORNIA - Fresno County--first of season. Second instar larvae 10 per leaf on Concord grapevine at residence. (Dunnegan).

SALT MARSH CATERPILLAR (Estigmene acrea) - CALIFORNIA - Fresno County--adults laid eggs and larvae hatched on commercial grapes in Selma area. (Dunnegan).

### SLUGS AND SNAILS

GRAY GARDEN SLUG (Agriolimax reticulatus) - OREGON - Western Washington County--still problem on early maturing strawberries. Infested or damaged average of 1 mature fruit per plant on 101 ha (250 acres). Excessive rain and cool overcast conditions created conditions for population increases. Baits seemed ineffective. (Collins).

## FOREST AND SHADE TREES

### INSECTS

SPRUCE BUDWORM (Choristoneura fumiferana) - MAINE - Central and eastern areas--larvae developed rapidly with 5th instars common week of June 1. Penobscot County--most advanced area at Greenbush: 29% 5th instar, 68% 4th, and 3% 3rd on May 28; parasitism 21%. Sprays began May 30 with treatment of 12,717 ha (31,400 acres) in southern Penobscot River Valley. Washington County--sprays 70% completed in Lambert Lake area May 29, expected to be completed May 30. Continued warm weather favored rapid development; sprays should be continuous. Current larval development continued to advance rapidly and 6th instar larvae more common throughout. Southern area--development slowed down slightly due to recent cool, wet weather and now similar to development in northern area. (Gall).

COOLEY SPRUCE GALL ADELGID (Adelges cooleyi) - PENNSYLVANIA - Dauphin County--eggs and adults on Douglas-fir in East Hanover Township, May 31. Heavy on lower 2 m (6 ft) of trunks on about 60% of trees in 75-year-old Christmas tree plantation. (Simons).

LINDEN LOOPER (Erannis tiliaria) - INDIANA - Perry County--defoliation 100% to post oak, lighter on other oaks, in about 5 sections. (Clark).

ELM LEAF BEETLE (Pyrrhalta luteola) - NEVADA - Washoe County--first eggs of season on elm in Reno and Sparks areas week ending June 2. (Bechtel).

COTTONY MAPLE SCALE (Pulvinaria innumerabilis) - FLORIDA - New county record. Dixie County--adults infested stems of Quercus virginiana (live oak) and Q. laurifolia (laurel oak) at Suwannee, May 23, 1978. Collected by A.E. Graham and C.H. Webb. Determined by A.B. Hamon. (Mead).

## MAN AND ANIMALS

### INSECTS

HORN FLY (Haematobia irritans) - OKLAHOMA - Noble County--250-300 per head on cattle week of June 2. (Arnold). NEBRASKA - Dawson and Lincoln Counties--averaged 100-150 per head on untreated cattle in river pastures. (Campbell et al.). INDIANA - Lawrence County--adults averaged 15-20 per head on 15 cattle June 2. (Williams).

FACE FLY (Musca autumnalis) - KANSAS - Wabaunsee County--averaged about 40 per head on range cattle near Harveyville. (Pitts). NEBRASKA - Dawson and Lincoln Counties--averaged 2-3 per face on untreated cattle in river pastures. (McNeal et al.). MISSOURI - Southwestern area--light, 0-11 (averaged less than 3) per head, on 6 small herds week ending June 3. (Munson). INDIANA - Lawrence County--adults averaged 7 per on head 15 cattle June 2. (Williams).

STABLE FLY (Stomoxys calcitrans) - NEBRASKA - Dawson and Lincoln Counties--averaged 1 per leg on untreated cattle in feedlots. (Boxler et al.).

## BENEFICIAL ORGANISMS & THEIR ENEMIES

### DISEASES

CHALKBROOD (Ascosphaera apis) - OHIO - Fairfield and Perry Counties--infected Apis mellifera (honey bee) in 7 commercial apiaries, unusually high number of reported cases for this disease. (Rudloff).

### INSECTS

A LADY BEETLE (Hippodamia sinuata crotchii) - OKLAHOMA - New State record. Texas County--adults collected from Schizaphis graminum (greenbug) infested sorghum near Goodwell by J.W. Johnson, July 26, 1977. Determined by R.D. Gordon. (Arnold).

TACHINID FLIES - PENNSYLVANIA - Dauphin, Lancaster, Perry, and Snyder Counties--Exorista japonica and Blondelia nigripes released against Lymantria dispar (gypsy moth) late May through early June. To date almost 20,000 E. japonica and 5,000 B. nigripes released. (Ticehurst).

A BRACONID WASP (Apanteles liparidis) - PENNSYLVANIA - Dauphin, Lancaster, Perry, and Snyder Counties--about 44,000 adults released against Lymantria dispar (gypsy moth) larvae May 3-15. (Ticehurst).

A BRACONID WASP (Apanteles harrisinae) - CALIFORNIA - First release of season against Harrisina brillians (western grapeleaf skeletonizer). Tulare County--38 released in Farmersville area May 24. Total of 63 released against 2nd and 3rd instar larvae week ending May 27. (Allen, Bastian).

A EUPELMID WASP (Anastatus semiflavus) - OKLAHOMA - Cimarron County--7 wasp adults collected from 400 Hemileuca oliviae (range caterpillar) eggs, parasitism less than 2%, near Felt, April 18. (Arnold).

AN ICHNEUMONID WASP (Bathyplectes curculionis) - OKLAHOMA - Percent parasitism of Hypera postica (alfalfa weevil) larvae collected from alfalfa May 4-19 by county: Beaver--70%, Ellis--86%, Harper--79%, Major--90%, Woods--93%, Woodward--87%, Grant--96%, Kay--95%, Payne--94%, Tulsa--66%, Washington--91%, Caddo--78%, Dewey--90%, Washita--87%, Cleveland--99%, Grady--99%, Lincoln--95%, Logan--95%, Pottawatomie--85%, Wagoner--92%, Creek--97%, Comanche--94%, Greer--82%, Jackson--81%, Kiowa--93%, Carter--68%, Murray--91%, and Stephens--98%. Statewide average 88.3%. (Arnold).

## FEDERAL AND STATE PROGRAMS

### DISEASES

WHEAT STEM RUST (Puccinia graminis f.sp. tritici) - KANSAS - First of season. Riley County--traces in experimental wheat plot. (Sim).

### INSECTS

CEREAL LEAF BEETLE (Oulema melanopus) - TENNESSEE - New county records for first 2 counties: Trousdale County--larvae on oats northwest of Hartsville, May 31, 1978, collected and determined by S. Gregory (Gregory); and Robertson County--larvae on oats north of Springfield, June 2, collected by D. Hooper, determined by J. Bogard. Morgan County--larvae on rye May 30; Scott and Davidson Counties--negative on small grains. (VanLandingham, Gordon). INDIANA - Franklin County--egg laying peaked on oats, larvae of all instars present. (Clark).

OHIO - Cereal leaf beetle eggs and larvae by county: Licking--averaged 11 and 1.2 per 0.09 sq m (sq ft) in 3 oat fields; Fayette--averaged 4.7 and 0.18 per 0.09 sq m in 10 oat fields (Turner); Trumbull--6 and 2 per 0.3 row m of oats [leaf sheaths strongly erected], adults very light, silvered some wheat fields; Ross--larvae 1-3 per stem, damaged 50% of 2,025 ha (5,000 acres) of wheat [heading] and oats [boot] May 30, heavier in western and southern areas (Muntzing); Clinton--larvae 3-4 on some wheat, other plants clean, "frosted" wheat [heading] (Fladt). Fairfield County--adult feeding began in corn next to wheat, feeding on corn not usually economic. (Drees).

VIRGINIA - Nottoway County--cereal leaf beetle damage widespread on barley; Franklin County--damaged 4.1 ha (10 acres) of spring oats. (Allen).

A GRASS BUG (Labops hesperius) - UTAH - Utah County--this species and Labops spp. reduced by cold, wet spring in Diamond Fork Canyon areas. Counts heavy and damage severe in some areas of Salina Canyon, May 22-25 as many nymphs became adults. Currently, 360 in 6 sweeps from crested wheatgrass and 471 per 6 sweeps from intermediate wheatgrass. (Haws). NEBRASKA - Banner, Scotts Bluff, and Sioux Counties--about 810.0 ha (2,000 acres) of crested and intermediate wheatgrass pastures treated. (Hagen).

GRASSHOPPERS - CALIFORNIA - San Bernardino County--Trimerotropis pallidipennis and Oedaleonotus enigma adults moderate to heavy on turf in Panoche Valley area. (Gilbert, Griffin). NEW MEXICO - Eddy and De Baca Counties--nymphs very heavy along fence rows and ditchbanks in cropland areas and 5-42 per 25 sweeps of alfalfa in southern Eddy County and 2-63 per 25 sweeps in De Baca County. (Nielsen). OKLAHOMA - Southeastern Pittsburg County--nymphs, 2nd through 4th instars, 8 or more per 0.8 sq m (sq yd) in pastures week of June 2. (Arnold).



KANSAS - Lyon County--grasshopper nymphs caused moderate foliar damage along soybean [8-cm (3-in)] field border near Admire. (Bell). Haskell County--heaviest since 1930's. (Edelblute). Heavy in wheat along Cimarron River. (Garwood). NEBRASKA - Morrill, Scotts Bluff, and Sioux Counties--mainly Ageneotettix deorum, Aulocara elliotti, Trachyrhachys kiowa, and Amphitornus coloradus nymphs up to 30 per 0.8 sq m in rangeland. (Hagen).

MORMON CRICKET (Anabrus simplex) - NEVADA - Elko County--2nd instar nymphs up to 40 (averaged 15) per 0.8 sq m (sq yd) in 2 areas of 32 ha and 40.5 ha (80 acres and 100 acres) each in Elliott Mountain area and Sulphur Spring Range week ending June 2. Treatments to be made. (Kail).

RANGE CATERPILLAR (Hemileuca oliviae) - NEW MEXICO - Colfax County--eggs in Park area and at Vermejo Mesa. Now occurs at least 161 km (100 miles) along northern State border and 80+ km (50+ miles) along eastern border. Union County--hatch completed. Colfax, Mora, and Harding Counties--hatch about 75% completed. From Yeso area, De Baca County, into Corona area, Lincoln County--larvae mostly 1st instar. (Nielsen).

SCREWWORM (Cochliomyia hominivorax) - Total of 127 cases reported from continental United States May 14-20 as follows: Texas 6, New Mexico 6, Arizona 113, California 2. (Meadows). Total of 494 cases confirmed in portion of Barrier Zone in Republic of Mexico. Total of 311 cases reported in Mexico south of Barrier Zone. (Williams, Smith). Number of sterile flies released this period totaled 77,410,300 as follows: Texas 30,160,000, New Mexico 1,800,000, Arizona 42,854,700, California 2,595,600. (Meadows). Total of 182,706,100 sterile flies released within Barrier of Mexico. (Williams, Smith).

## DETECTION

### NEW STATE RECORD

#### INSECTS

A LADY BEETLE (Hippodamia sinuata crotchii) - OKLAHOMA - Texas County. (p. 278).

### NEW COUNTY RECORDS

#### INSECTS

BROWN SOFT SCALE (Coccus hesperidum) - FLORIDA - Dixie. (p. 277).

CEREAL LEAF BEETLE (Oulema melanopus) - TENNESSEE - Trousdale and Robertson. (p. 279).

CHAFF SCALE (Parlatoria pergandii) - FLORIDA - Dixie. (p. 277).

CITRUS SNOW SCALE (Unaspis citri) - FLORIDA - Dixie. (p. 277).

COTTONY MAPLE SCALE (Pulvinaria innumerabilis) - FLORIDA - Dixie. (p. 278).

GLOVER SCALE (Lepidosaphes gloveri) - FLORIDA - Dixie. (p. 277).

POTATO STEM BORER (Hydroecia micacea) - NEW YORK - Monroe. (p. 268).

PURPLE SCALE (Lepidosaphes beckii) - FLORIDA - Dixie. (p. 277).

## LIGHT TRAP COLLECTIONS

LIGHT TRAP COLLECTIONS														
State	County	Locality	Date	Time of day	Temperature, F.	Precipitation (mm)	Type of trap	Species	No. of specimens					
ARIZONA	Mesa	5/21-28	BL	83	11	31	222	8	239	1690	83	72		
CALIFORNIA	Bellota	5/30	BL	5										
FLORIDA	Gainesville	6/1-7	BL	1		50					2			
INDIANA (Counties)	Tippecanoe	5/24-31	BL	60										
	Randolph	5/24-31	BL	4	60									
KANSAS	Haviland	6/4-5	BL	8	172	4	8							
	Hays	6/7	BL	0	42	0	0							
MINNESOTA	Fergus Falls	6/1-6	BL	4										
	Shakopee	6/1-6	BL	1										
MISSISSIPPI	Stoneville	6/2-8	2BL	9		1	7	26						
NEBRASKA	Clay Center	5/30-6/7	BL	11	30	22								
NORTH CAROLINA (County)	Bladen	5/30-6/6	1BL											
OHIO (County)	Huron	5/31-6/9	2BL	3										
										5.3	27.9			
										398	4	226		
										11		9	6	1
										16		3		
										2	5	6		
										952	12	64	24	
										12	2	24	6	
										53	2	91		
										1	0	34		
										</				



# LIGHT TRAP COLLECTIONS

	Precipitation Temp. - 32° F. (mm)	Type of trap	Type of			Crops
			BL = blacklight	UV = ultraviolet	other	
PENNSYLVANIA (Districts Central 6/1-7 North West 5/23-6/6		BL	2			Trichoplusia ni (cabbage looper)
		BL	4			Trichoplusia ni (cabbage looper)
		BL	0	0	0	Spodoptera ornithogalli (milkweed worm)
		BL	0	1		Spodoptera frugiperda (fall armyworm)
TEXAS College Station 5/31- 6/6		BL	0	0	0	Spodoptera frugiperda (fall armyworm)
		BL	0	0	0	Spodoptera frugiperda (fall armyworm)
		BL	0	0	0	Spodoptera frugiperda (fall armyworm)
		BL	0	0	0	Spodoptera frugiperda (fall armyworm)
WISCONSIN Lancaster 6/1-7 Mazomanie 6/1-7		BL	0	0	0	Spodoptera frugiperda (fall armyworm)
		BL	0	0	0	Spodoptera frugiperda (fall armyworm)
		BL	0	0	0	Spodoptera frugiperda (fall armyworm)
		BL	0	0	0	Spodoptera frugiperda (fall armyworm)

# Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff  
Plant Protection and Quarantine Programs, USDA

	<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Destination</u>
<u>Ceratitis capitata</u> (Wiedemann) Mediterranean fruit fly Det. R.P. Higgins	larval	in coffee berries from baggage	Brazil	Miami	FL
<u>Diorymerellus</u> sp. a weevil Det. D.R. Whitehead	adult	in <u>Barkeria</u> plants from cargo	Guatemala	Los Angeles	CA
<u>Phyllophaga</u> sp. a scarab beetle Det. R.D. Gordon	adult	with cut flowers from cargo	Guatemala	Houston	LA
<u>Placosternus</u> sp. a cerambycid beetle Det. T.J. Spilman	pupal	in guatambu squares from cargo	Paraguay	Mobile	AL
<u>Smicronyx</u> sp. a weevil Det. D.R. Whitehead	adult	with packing material in crates of cargo	West Germany	Greenville	SC
<u>Solenopsis</u> sp. an ant Det. D. Smith	adult	with soil and grass contamination on containers	Cuba	Savannah	USA
<u>Strangalia aurulenta</u> (Fabricius) a cerambycid beetle Det. T.J. Spilman	adult	in wood crates of glass	Romania	Wilmington	USA
<u>Urocerus gigas gigas</u> (Linnaeus) a siricid wasp Det. D. Smith	adult	in wood crates of slate	Italy	New Orleans	LA





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Animal and Plant Health Inspection Service  
Hyattsville, Maryland 20782

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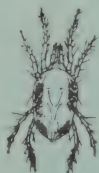
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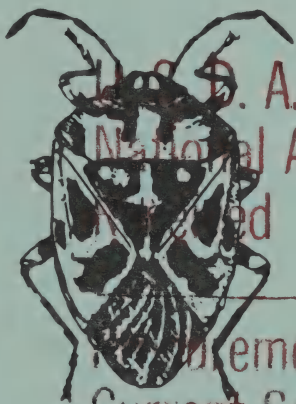
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# Cooperative PLANT PEST REPORT

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This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

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*Correspondence should be directed to:*

*CPPR*

New Pest Detection and Survey Staff  
Plant Protection and Quarantine Programs  
Animal and Plant Health Inspection Service  
U.S. Department of Agriculture  
Federal Building #1  
Hyattsville, Maryland 20782

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## COOPERATIVE PLANT PEST REPORT

### HIGHLIGHTS

#### Current Conditions

Extensive replanting of corn due to BLACK CUTWORM in parts of Iowa, Kentucky, and Illinois. (p. 287-288).

ALFALFA WEEVIL 30+ per sweep of alfalfa in parts of Iowa and Wisconsin. (p. 291).

POTATO LEAFHOPPER near economic levels on alfalfa in parts of Kentucky and Indiana. (p. 291). Adults on various crops in Wisconsin. (p. 293).

#### Detection



A WEED (p. 290) and a COCKROACH (p. 295) new to the Western Hemisphere in California.

New State records include TAURICA POWDERY MILDEW in California (p. 293), BLUE ALFALFA APHID in Texas (p. 291), and an ICHNEUMONID WASP in Kentucky (p. 295).

For new county and island records see pages 297-298.

New host for TAURICA POWDERY MILDEW in California (p. 293) and a PTEROMALID WASP in Hawaii (p. 297).

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Reports in this issue are for the week ending June 16 unless otherwise indicated.

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## CORN, SORGHUM, SUGARCANE

### INSECTS

EUROPEAN CORN BORER (*Ostrinia nubilalis*) - KANSAS - Status on corn by county: Eastern area--usually none to trace, Montgomery--larvae, 1-1.9 cm (0.5-0.75 in) long, infested up to 40% of plants [early tassel] in 1 field, Johnson and Douglas--egg masses on 20-40% of plants [36-41 cm (14-16 in) tall], and Leavenworth--young larvae on 30% of plants [41 cm tall] in 1 field. (Hilbert).

MISSOURI - East-central and northeastern areas--European corn borer larvae heavy, 2-8 per infested stalk in all corn 51+ cm (20+ in) extended leaf height. Leaf feeding on 40-100% of plants. Throughout northern area--egg masses and adults still found. (Munson). ILLINOIS - Status on corn by area: Northern--eggs laid; southern two-thirds--fed in whorls, 70+% infestations often in taller fields, egg masses averaged 1+ per plant in many fields; and Lawrence County--egg masses averaged 6 per plant in 1 field. (Black).

MINNESOTA - Southwest and south-central districts--heavy European corn borer increases in traps at Lamberton, Worthington, and Le Sueur. (Sreenivasam). WISCONSIN - Eggs laid on corn in spite of corn not old enough to sustain larvae. Egg-filled females 2 per 0.8 sq m (sq yd), heavy on peas, small grains, tall grasses, and weeds. (Lovett).

TENNESSEE - Macon, Obion, Henry, Lake, Smith, Sumner, Trousdale, White, Cannon, and Rutherford Counties--European corn borer mostly, and SOUTHWESTERN CORN BORER (*Diatraea grandiosella*) heavy in corn. Many 1st and 2nd instars deep within whorls; control difficult. Western area--infested corn [tassel in most fields]. (Gordon, White). NORTH CAROLINA - Cleveland, Halifax, Edgecombe, and Wilson Counties--infested up to 60% of corn in scattered fields. (Peedin et al.).

KENTUCKY - European corn borer larval damage began to reach economic levels on corn [5 to 7-leaf]. Central and mid-western regions--infestation level 1-97% (averaged 55%) in 12 scattered fields. Larval averages ranged 1-5.8 (averaged 2.4) per infested plant. Larvae 1st to 3rd instar and occasionally entered leaf midrib; no eggs. (Sloderbeck).

OHIO - Brown County--7 European corn borer males in 1 pheromone trap May 30 to June 14. (Drees). MICHIGAN - Status on field and sweet corn by county: Kalamazoo--first generation eggs present and Cass--first larvae on June 12. (Hammon).

BLACK CUTWORM (*Agrotis ipsilon*) - KANSAS - Status by county: Atchison and Brown--larvae, 3-3.18 cm (1-1.25 in) long, damaged average of 1-12% of plants in 3 corn [20-25 cm (8-10 in) tall] fields, damaged 30% of sorghum plants in 1 of 5 fields in latter county; Douglas, Linn, Johnson, Miami, Bourbon, Crawford, Cherokee, Labette, Wilson, Montgomery, Neosho, and Greenwood--none to trace, infested 20% of 1 sorghum field in Montgomery County near Lafontaine. (Hilbert, White).

MISSOURI - Black cutworm active in seedling corn in northern corn areas in almost all fields. Northeastern area--damage ranged from very light to complete stand destruction, stand loss 1-10% in 50% of fields. Larvae 2nd instar to full grown, larger in earlier planted fields. (Munson). IOWA - Southern and central areas--widespread infestations on corn caused extensive replanting. Treatments slowed by dry soil. (Townsend).

KENTUCKY - Henderson and several surrounding counties--black cutworm larvae heavily damaged corn in Ohio River bottoms. Several thousand ha (acres) needed treatment, 30-70% stand reductions common. Treatments in some cases futile as larvae about half grown and feeding below ground. Many applications applied in several cases to try to save stand. Yields in many replanted fields will probably be greatly reduced due to late planting date. Severity probably related to corn planted 21-30 days later than normal due to cool, wet spring. (Sloderbeck).

ILLINOIS - Statewide--many heavy black cutworm infestations on corn. Replanting necessary with chemical treatment. (Black). INDIANA - Southwest district--larvae damaged corn in Gibson and Posey Counties, and in scattered locations in other southern districts and to a lesser extent in west-central fields. Losses generally 5-10% but up to 80% in occasional fields. Dry weather contributed to poor and/or irregular stands, making loss estimates due to cutworms difficult to assess in some instances. (Abrams et al.).

OHIO - Statewide--black cutworm cut high percentages of young corn. (Blair). Brown County--damage absent in 1 field of corn [early to midwhorl]; larvae, 5th through 7th instar, cut less than 5% of total plants [2-leaf to early whorl] in adjacent no-till field. Scioto (3 fields), Franklin (2 fields), and Delaware (1 field) Counties--damage absent on corn. (Drees).

WISCONSIN - Statewide--black cutworm damage increased in scattered corn fields. Damage by county: Wood--10-60% in over 100 ha (300 acres) due to this species and GLASSY CUTWORM (Crymodes devastator); St. Croix--60% in 1 field, minor in many more fields; Green Lake--some damage to fields in sod or grassy corn last year; Shawano and Oconto--C. devastator damage caused replanting in some fields; and Marquette, Rusk, Marinette, Waushara, and Burnett--also reported damage. Damage in southern counties probably past peak but can continue for several weeks. Damage in northern counties probably near peak. (Lovett).

DINGY CUTWORM (Feltia ducens) - IOWA - Southern and central areas--widespread infestations caused extensive replanting. Treatments slowed by dry soil. (Townsend). MINNESOTA - Waseca County--larvae averaged 8 per 0.09 sq m (sq ft), damaged 0.8 ha (2 acres) of sweet corn. Control effective in 8.9 ha (22 acres). (Sreenivasam).

BRONZED CUTWORM (Nephelodes minians) - SOUTH DAKOTA - This species and a NOCTUID MOTH (Feltia subgothica) damaged about 2,000 ha (4,000 acres) of corn and soybeans with less than 1% infested. At Canton, Lincoln County, Corson, Minnehaha County, Viborg and Center Point, Turner County, and Junius, Lake County--"hotspots" in fields with heavy crop residue from 1977. (Walgenbach).

FALL ARMYWORM (Spodoptera frugiperda) - FLORIDA - St. Johns County--mainly larvae of this species and some CORN EARWORM (Heliothis zea) infested sorghum whorls and field and sweet corn (mostly field) in commercial plantings in Hastings area. Problem past 14 days. (Workman).

CORN EARWORM (Heliothis zea) - MISSISSIPPI - Marshall, Union, Pontotoc, and Chickasaw Counties--larvae light, 0.4 per 30.5 row m (100 row ft) fed on corn [whorl]. (Anderson).

VARIEGATED CUTWORM (Peridroma saucia) - MINNESOTA - Jackson County--1-5 per corn plant in 1 field; usually no threat to corn. (Sreenivasam).



ARMYWORM (*Pseudaletia unipuncta*) - OHIO - Franklin County--larvae, 30 mm (1.2 in) long, damaged some corn [mid to late whorl] near field margins. (Drees).

POTATO STEM BORER (*Hydroecia micacea*) - NEW YORK - Orleans and Niagara Counties--larvae infested field corn. Seem well established along south Lake Ontario shore line. Monroe County--first infestation, stand loss 50+% along field border and about 2% throughout central portion of field. Total stand loss about 10% or more. (Willson). VERMONT - Addison County--damage severe, 30+%, in 1 corn field; Burlington area, Chittenden and Orleans Counties--present. (MacCollom).

CORN ROOTWORMS (*Diabrotica* spp.) - WISCONSIN - Walworth County--early larvae on corn. (Lovett).

GREENBUG (*Schizaphis graminum*) - OKLAHOMA - Texas County--light on young sorghum. (Arnold). KANSAS - Counts [and plant height] on sorghum by county: Jefferson, Atchison, Brown, Douglas, Linn, Cherokee, Labette, Wilson, Montgomery, Greenwood, Sedgwick, and Butler--0 [5-28 cm (2-11 in)]; Leavenworth--trace [5 cm]; Seward--averaged 6 [5 cm]; and Meade--averaged 0.7 [5 cm]. (Shuman et al.). SOUTH DAKOTA - Potter County--infested spring wheat [boot or younger] at Gettysburg and Hoven. (Walgenbach).

CORN LEAF APHID (*Rhopalosiphum maidis*) - OKLAHOMA - Wagoner County--10-20 per plant on sorghum [36-46 cm (14-18 in) tall]. (Arnold). KANSAS - Common in sorghum whorls in east-central and southeastern areas. Linn County--averaged up to 250 per plant [20 cm (8 in) tall] and Wilson County--averaged up to 200 per plant [23 cm (9 in) tall]. (White).

## SMALL GRAINS

### DISEASES

WHEAT LEAF RUST (*Puccinia recondita* f.sp. *tritici*) - ILLINOIS - Prevalence/severity on commercial wheat [kernels near middle of head one-fourth to three-fourths formed] by county week of June 5: Perry--70%/trace to 5%, Washington--50%/trace, Jersey--100%/trace, and Scott--trace/trace. (Jordan, Mollet). WISCONSIN - Prevalence/severity by county: Columbia--6%/1% in 1 field of winter wheat, and Green--trace. (Lovett).

BARLEY LEAF RUST (*Puccinia hordei*) - CALIFORNIA - Rusted 90% of foliage on about 40.5 ha (100 acres) of Kombar and Gus barley [milky]. Imperial County--expected to reduce yield 50% near Holtville. (Kontaxis).

RYE LEAF RUST (*Puccinia recondita* f.sp. *secalis*) - WISCONSIN - La Crosse, Monroe, Grant, Iowa, Sauk, and Rock Counties--infected every field of rye observed, heaviest infection in Rock County field with prevalence 100%/severity 15-20%. (Lovett).

OAT CROWN RUST (*Puccinia coronata* var. *avenae*) - WISCONSIN - Status by county: Columbia and Sauk--less than 1% with 1-5 pustules per leaf on oats; Dane, Jefferson, and Rock--5-10% infection level on some leaves in several fields along buckthorn-infested woodlots. (Lovett).



LEAF BLOTCHES (*Septoria* spp.) - WISCONSIN - Green County--prevalence 80-100%/severity 20-25% in 2 winter wheat fields. (Lovett). SPECKLED LEAF BLOTCH (*Septoria tritici*) - ILLINOIS - Prevalence/severity on commercial wheat [kernels near middle of head one-fourth to three-fourths formed] by county week of June 5: Perry--100%/15-20%, Washington--100%/5-10%, Jersey--100%/20-25%, Montgomery--100%/25-35%, Scott--100%/15-20%, Greene--100%/10-15%, Fayette--100%/20-25%, Clinton--100%/15-20%, Marion--100%/10-15%, and Shelby--100%/15-20%. (Jordan, Mollet).

LOOSE SMUT (*Ustilago nuda*) - ILLINOIS - Washington County--on few scattered wheat [kernels near middle of head one-fourth to three-fourths formed] plants in 1 commercial field week of June 5. (Jordan, Mollet). WISCONSIN - Dane County--prevalence 23% in 1 field of winter wheat. (Lovett).

SCABS (*Fusarium* spp.) - ILLINOIS - Prevalence on heads of commercial wheat [kernels near middle of head one-fourth to three-fourths formed] by county week of June 5: Washington, Fayette, and Marion--few scattered plants in 1 field, and Perry--2% in 1 field. (Jordan, Mollet).

TAKE-ALL (*Gaeumannomyces graminis* var. *tritici*) - WISCONSIN - Winter wheat in Green County and rye in Iowa County--white heads observed. (Lovett).

BARLEY YELLOW DWARF LUTEOVIRUS - ILLINOIS - Perry, Jersey, Montgomery, Greene, and Fayette Counties (1 field each)--prevalence trace to 3% in commercial wheat [kernels near middle of head one-fourth to three-fourths formed] week of June 5. (Jordan, Mollet).

## INSECTS

ARMYWORM (*Pseudaletia unipuncta*) - OKLAHOMA - Ellis County--4 per 0.09 sq m (sq ft) of wheat June 12. (Arnold).

HESSIAN FLY (*Mayetiola destructor*) - SOUTH DAKOTA - Infested spring wheat in 7 counties. Brown County--heaviest infestation within 64-km (40-mile) radius around Aberdeen. Lodging expected at harvest in early planted, heavily infested fields. (Walgenbach). NORTH DAKOTA - Morton County--larvae and pupae heavy on spring wheat near Hebron, damaged 50+% of field. (McBride).

ASTER LEAFHOPPER (*Macrosteles fascifrons*) - MINNESOTA - Central, east-central, southwest, and southeast districts--lighter than in 1977, 40 per 100 sweeps of oats and wheat in 77 fields. (Sreenivasam).

CHINCH BUG (*Blissus leucopterus leucopterus*) - KANSAS - Riley, Butler, and Harvey Counties--nymphs, most stages, very heavy in some wheat fields checked. (Salsbury et al.).

## TURF, PASTURES, RANGELAND

## WEEDS

A WEED (*Parentucellia latifolia* (L.) Caruel) - CALIFORNIA - New Western Hemisphere record. Marin County--this member of the snapdragon family collected in 16-ha (40-acre) pasture seeded with subclover at Marshall, May 1, 1978. Collected by K. Best. Determined by J.T. Howell. (Ferlatte). Known from Albania, Bulgaria, France and Corsica, Greece, Italy, Sardinia and Sicily, Portugal, Spain and Balearic Islands, Turkey, and Yugoslavia. (Tutin et al.).

## FORAGE LEGUMES

### DISEASES

A FUSARIUM CROWN RUST (Fusarium sp.) - WEST VIRGINIA - Jefferson County--infected about 90 sq m (1,000 sq ft) in 1 alfalfa field. (Baniecki).

### INSECTS

ALFALFA WEEVIL (Hypera postica) - UTAH - Larval status on alfalfa by county: Cache--increased at Hyde Park but much alfalfa cut and population below normal and Beaver--increased. (Davis, Esplin).

IOWA - Allamakee and Jackson Counties--alfalfa weevil larvae, 3rd and 4th instar 30+ per sweep, infested 50-100% of forage legume tips. (Townsend). MINNESOTA - Larvae per 100 sweeps of alfalfa by county: Houston--averaged 52, up to 330 in 1 field; Olmsted--up to 160 in southeastern area; and Wabasha--trace. (Sreenivasam). WISCONSIN - Southern one-third area--fed on 10% or more of regrowth, larvae 20 or more per sweep of uncut alfalfa, pupae and newly emerged adults present, and tip damage 100%; Door, Kewaunee, Manitowoc, and Sheboygan Counties--larvae 1-100+ per sweep; and northwestern counties--weevils 1-10 per sweep. (Lovett).

TENNESSEE - Alfalfa weevil survey of 10,306 ha (25,448 acres) in 62 counties showed that of 7,545.6 ha (18,631 acres) of forage legumes needing treatment, 4,251.3 ha (10,497 acres) treated. (Gordon, White). OHIO - Most alfalfa cut. Status by county: Scioto--late instar larvae, 0.9 per sweep, damaged about 20% of leaf growth in 1 field [17-22 cm (7-9 in)]; Delaware--20% of cocoons empty in uncut alfalfa [69 cm (27 in)] at field margins. (Drees).

POTATO LEAFHOPPER (Empoasca fabae) - ILLINOIS - Counts per sweep of alfalfa by county: Western and northwestern areas--1+ in occasional fields; Henry--averaged 2 (about 25% nymphs) in 1 field, yellowing noted. (Black). WISCONSIN - Buffalo County--adults 7 per 25 sweeps of regrowth alfalfa and 2 per 10 sweeps of uncut alfalfa. (Lovett). KENTUCKY - Near economic levels in some alfalfa fields. Caldwell County--adults 1.2 and nymphs 0.3 per sweep in 1 field [very early bloom], will probably be harvested soon. (Sloderbeck).

INDIANA - Southern districts--potato leafhopper near economic levels in alfalfa [stubble from first cutting to 45-cm (18-in) second growth]. (Meyer). OHIO - Nymphs and adults on alfalfa and other crops. Counts per sweep of alfalfa by county: Scioto--0.1 and Franklin--0.35. (Drees). MICHIGAN - Adults by county: Clinton--taken from light trap near St. Johns, June 10-11; Muskegon, Allegan, and Kalamazoo--swept from alfalfa about 7 days later than usual. (Love et al.) WEST VIRGINIA - Jefferson County--still light on alfalfa. (Hacker).

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - NEVADA - Lander County--this species and PEA APHID (A. pisum) averaged 70 per sweep each in previously treated 16-ha (40-acre) seed alfalfa field at Reese River. Control excellent in other fields treated at same time. (Stitt). UTAH - Beaver County--both species reduced first growth alfalfa severely in some Milford fields and 25-70% in Minersville area. (Esplin, Knowlton).

TEXAS - New State record for blue alfalfa aphid. Hudspeth County--heavy in alfalfa field 2 km (1 mile) south of Dell City. Collected by C.W. Neeb, April 14, 1978. New county record. Reeves County--light to moderate in 3 of 5 alfalfa fields (no city available). Collected by C.W. Neeb, April 18. Both determined by R.C. Dickson. (Jackman).

SPOTTED ALFALFA APHID (Therioaphis maculata) - NEVADA - Pershing County--first of season. Occasional specimens collected in seed alfalfa field in Dixie Valley. (Munk).

ALFALFA PLANT BUG (Adelphocoris lineolatus) - ILLINOIS - Western and north-western areas--unusually heavy, up to 3 per sweep, in some alfalfa fields. (Black).

## SOYBEANS

### INSECTS

BLACK CUTWORM (Agrotis ipsilon) - MISSOURI - East-central area--light in 2 of 10 soybean fields. Northeastern area--small larvae light in most soybeans [germinating]. (Munson). MISSISSIPPI - Kemper and Madison Counties--reduced stands of soybeans [seedling]. Damage heavy in some fields. (Lambert). NORTH CAROLINA - Damaged soybeans by county: Coastal Plains area--4 fields, Washington--severe in about 3 ha (8 acres), and Duplin--severe in 1 ha (3 acres). (Pleasants).

MEXICAN BEAN BEETLE (Epilachna varivestis) - OHIO - Scioto County--adults averaged 1 per 0.3 row m (row ft) on soybeans, damaged 63% of plants [8 cm (3 in) tall]. (Drees).

THREECORNERED ALFALFA HOPPER (Spissistilus festinus) - MISSISSIPPI - Kemper and Neshoba Counties--adults increased on soybeans [seedling], heavier than in mid-June of past years. (Lambert).

SOYBEAN THRIPS (Sericothrips variabilis) - NORTH CAROLINA - Bertie, Wilson, and Pender Counties--damage moderate to heavy on 15-20% of soybean plants in fields of 4.1-12 ha (10-30 acres), 1 field treated with preemergence systemic. (Griffin et al.).

## COTTON

### INSECTS

BOLL WEEVIL (Anthonomus grandis grandis) - OKLAHOMA - Adult pheromone trap catches (number of traps) by county: Jackson--118 (85), Kiowa--145 (32), Harmon--31 (13), and Tillman--16 (10). (Arnold).

BOLLWORM (Heliothis zea) - ARIZONA - Counts on cotton by county: Yuma--eggs 1-25 per terminal, Pinal--eggs 1-5 and larvae 1-10 per 100 sweeps, and Maricopa--larvae 3 per 50 terminals. (Davis et al.). ARKANSAS - Chicot County--eggs averaged 1 per 0.3 row m (row ft) in 1 cotton field; no larvae. (Wall).

## TOBACCO

### INSECTS

TOBACCO BUDWORM (Heliothis virescens) - NORTH CAROLINA - Bladen County--10 of 160 tobacco fields on about 400 ha (1,000 acres) above threshold level. Heaviest infestation level 10%. (Dunham). Martin County--2 of 122 ha (6 of 300 acres) at or above threshold level. (Pleasants).

TOBACCO HORNWORM (Manduca sexta) - NORTH CAROLINA - Bladen County--7 of 160 tobacco fields on about 400 ha (1,000 acres) above threshold level. Heaviest infestations 8 large larvae per 40 plants. (Dunham).

GREEN PEACH APHID (Myzus persicae) - NORTH CAROLINA - Martin County--12 of 122 ha (30 of 300 acres) in 8 of 50 fields of tobacco at threshold level, 25% of plants harbored large colonies on 2 leaves. (Pleasants).

## **POTATOES, TOMATOES, PEPPERS**

### DISEASES

TAURICA POWDERY MILDEW (Leveillulla (Oidiopsis) taurica) - CALIFORNIA - New State record. Also host record for State. Imperial County--prevalence 100% on tomato varieties, Ace and Sunlight, in several fields of about 400 ha (1,000 acres) near Brawley by May 1978. Collected and determined by D.G. Kontaxis. (Kontaxis).

### INSECTS

EUROPEAN CORN BORER (Ostrinia nubilalis) - WISCONSIN - Adults still heavy in several blacklight traps. Sauk County--egg masses and 1st instar larvae on volunteer corn in potato fields in Spring Green area. Adult flight expected to be prolonged due to cold nights. (Lovett).

COLORADO POTATO BEETLE (Leptinotarsa decemlineata) - OHIO - First larvae of season. Scioto County--larvae, averaged 3-5 mm (0.1-0.2 in) long, light on potatoes [20 cm (8 in) tall] and abandoned tomatoes. (Drees).

## **BEANS AND PEAS**

### DISEASES

PEA ROOT ROT (Aphanomyces euteiches) - WISCONSIN - Status on peas by county: Sauk (2 fields) and Columbia (1 field)--localized patches of stunted, yellow plants with rotted roots; Portage--damage extensive in 1 field; Rock--no plants over 20 cm (8 in) tall and severity about 90% in 1 field to be harvested. (Lovett).

### INSECTS

POTATO LEAFHOPPER (Empoasca fabae) - WISCONSIN - Statewide--adults almost widespread probably due to many migrants blown into State by strong southerly winds June 10-11. Swept from alfalfa, soybeans, navy beans, oats, and potatoes. Buffalo County--adults 3 per 25 sweeps of navy beans; Sauk County--adults 3 per 25 sweeps of potatoes in Spring Green area. (Lovett).

## **CUCURBITS**

### INSECTS

WESTERN CORN ROOTWORM (Diabrotica virgifera) - TEXAS - New county record. Tom Green County--teneral adult collected on squash plant in garden, June 6, 1978. Collected by G.T. Bohmfalk. Determined by J.A. Jackman; confirmed by J. Krysan. (Jackman).

## **DECIDUOUS FRUITS AND NUTS**

### INSECTS

ORIENTAL FRUIT MOTH (Grapholitha molesta) - OKLAHOMA - Wagoner County--2-7 (averaged 4 per trap) in 6 pheromone traps in 3 peach orchards. (Arnold).



WESTERN CHERRY FRUIT FLY (Rhagoletis indifferens) - CALIFORNIA - First adult of season. Humboldt County--trapped at Hoopa. (Hudson, Bejarano). IDAHO - Canyon County--first adults of season on sticky board trap in Sunny Slope area June 13. (Saunders).

## ORNAMENTALS

### INSECTS

A DIASPIDID SCALE (Velataspis dentata) - FLORIDA - New county record. Osceola County--adults infested severely infested leaves of Magnolia sp. near Kissimmee, May 10, 1978. Collected by W.J. Shirley and G.T. Smith. Determined by A.B. Hamon. (Mead).

A SOFT SCALE (Pulvinaria urbicola) - FLORIDA - New county record. Indian River County--adults severely infested stems of Ipomopsis rubra (standing cypress) at Orchid Island, May 11, 1978. Collected by S.P. Beidler. Determined by A.B. Hamon. (Mead).

## FOREST AND SHADE TREES

### INSECTS

SPRUCE BUDWORM (Choristoneura fumiferana) - MAINE - Larvae mostly 6th instar, pupae more common in southern and central areas. Sixth instar up to 80% of larvae in Allagash area and 60-70% in Umsaskis area. Pupae expected to peak week of June 22 statewide. Rapid development and poor flying weather allowed damage to reach severe levels. Some unsprayed blocks in areas like Baker Lake may be dropped from spray due to poor conditions; heavy damage very visible. Where treated earlier, foliage protection good and trees in good condition. Spraying continued at Presque Isle as weather permitted. Treatments planned to be over by June 17. (Gall).

SMALLER EUROPEAN ELM BARK BEETLE (Scolytus multistriatus) - NORTH DAKOTA - New county records. Adults collected from multilure pheromone sticky board traps on American elms. Ransom County--collected by C.G. Scholl and determined by R.B. Carlson, June 5, 1978. Emmons County--collected and determined by W.J. Brandvik, June 14. (Brandvik, Scholl).

PALMERWORM (Dichomeris ligulella) - OHIO - Coshocton, Franklin, Greene, Hamilton, Jefferson, Lorain, and Wayne Counties--damage severe to young growth of oaks, second year of extensive damage. (Drees, Miller).

## MAN AND ANIMALS

### INSECTS

HORN FLY (Haematobia irritans) - MISSOURI - Adults per head by area (1 herd each): North-central--20-40 and central--averaged 50. (Hall). IOWA - Story County--averaged 40 per head on untreated cattle. (Townsend).

FACE FLY (Musca autumnalis) - MISSOURI - Adult averages per head by area (1 herd each): East-central--averaged 5.8 and northeastern--5.5. (Munson). IOWA - Story County--averaged less than 1 per head on untreated cattle. (Townsend). MISSISSIPPI - Winston, Neshoba, Newton, Chickasaw, Pontotoc, and Union Counties--adults negative on cattle. Statewide--very light, probably due to hot, dry weather decreasing overwintered populations. (Anderson).

LONE STAR TICK (*Amblyomma americanum*) - KENTUCKY - New county record. Breckinridge County--collected from cows 13 km (8 miles) north of Hardinsburg on May 9, 1978, by C.M. Christensen. Determined by S. Brown. (Brown).

## STORED PRODUCTS

### INSECTS

A COCKROACH (*Blatta lateralis* (Walker)) - CALIFORNIA - New Western Hemisphere record. San Joaquin County--heavy in mess facilities and 1 or more warehouses of army depot at Lathrop. Collected by K. Wright about May 20, 1978. Determined by A.B. Gurney. (Hasbrouck). Known from Egypt, India and Pakistan (Kashmir), Iran, Iraq, Israel and Jordan (Palestine), Libya, Saudi Arabia, Sudan, and U.S.S.R. (Caucasus and Central Asia). (Gurney).

## BENEFICIAL ORGANISMS & THEIR ENEMIES

### INSECTS

A MYMARID WASP (*Anaphes flavipes*) - Recoveries of 20+% parasitism of *Oulema melanopus* (cereal leaf beetle) larvae in individual oat fields (unless otherwise stated) by State and county. PENNSYLVANIA - Blair--21% and 33% in 2 fields May 26 and May 30, 1978, respectively, in North Woodbury Township. KENTUCKY - Lewis--44%, 38%, and 41% in 3 fields May 26 near Tollesboro. New county record for Nicholas County--100% June 1, 1978, near Carlisle. Collected by L. Conn. Determined by P.R. DeWitt.

OHIO - Licking--26% and 45% parasitism by *A. flavipes* in 2 fields May 30 in Washington Township and 48% and 23% in 2 fields in Eden Township May 31; Fayette--21% June 9 in Union Township. INDIANA - Franklin--31% May 23 and 21% June 6 in Springfield Township, and Huntington--24% June 6 in Clear Creek Township; and St. Joseph--21% May 31 in Warren Township. MICHIGAN - Berrien--50% May 31 and 26% June 7 in Bertrand Township. MARYLAND - Washington--66% June 1 near Clear Spring. (T.L. Burger).

A EULOPHID WASP (*Tetrastichus julis*) - Recoveries of 20+% parasitism of *Oulema melanopus* (cereal leaf beetle) larvae in individual oat fields (unless otherwise stated) by State and county. INDIANA - La Porte County--22% June 8 in Johnson Township. WEST VIRGINIA - Grant County--28% near Petersburg on grass and 31% near Lahmansville on wheat May 22. KENTUCKY - New county record. Fayette County--parasitism 10% in 1 wheat field near Lexington, May 22, 1978. Collected by L. Conn. Determined by P.R. DeWitt. MARYLAND - Washington County--26.3% in 1 oat field near Clear Spring June 2. (T.L. Burger).

AN ICHNEUMONID WASP (*Lemophagus curtus*) - KENTUCKY - New State record. Fayette County--parasitism of *Oulema melanopus* (cereal leaf beetle) larvae 10% in 1 wheat field near Lexington May 22, 1978. Collected by L. Conn. Determined by P.R. DeWitt. WEST VIRGINIA - New county record. Grant County--parasitism of *O. melanopus* larvae 1.8% in 1 wheat field near Landes, May 22, 1978. Collected by E. Prunty. Determined by V.E. Montgomery. (T.L. Burger).

## FEDERAL AND STATE PROGRAMS

### INSECTS

CEREAL LEAF BEETLE (*Oulema melanopus*) - PENNSYLVANIA - Counts on oats by county: York--heavy in many locations, also on wheat (Dobrosky); Crawford--eggs averaged 2 and larvae 0.8 per 0.6 row m (2 row ft) in Vernon Township (Shiner). Larvae parasitized by *Lemophagus curtus* (an ichneumonid wasp) released in 3 locations each in 25 counties for total of 75 small grain fields, last release for year. (Eckess).



WISCONSIN - First cereal leaf beetle appearance in State since 1976. Walworth County--one-half to almost full-grown larvae on oats near Lake Geneva. (Lovett).  
TENNESSEE - Franklin, Lincoln, Coffee, Bedford, Lawrence, Giles, Henry, Stewart, and Weakley Counties--negative in small grains. (Cagle, Warren).

GRASSHOPPERS - COLORADO - Weld County--mostly 2nd and 3rd instars on about 3,000 ha (8,000 acres) of rangeland. (Sexton). OKLAHOMA - Panhandle, northwestern, west-central, and southwestern counties--generally increased on rangeland in some areas in most counties, 25-30 per 0.8 sq m (sq yd) in some favorable habitats. Harper County--heavy in fence rows and lawns. Kingfisher County--in gardens and lawns. (Arnold).

KANSAS - Grasshopper status by county: Seward, Meade, and Stevens--Melanoplus sanguinipes adults and nymphs sometimes heavy on weeds along wheat field borders, adults sometimes more heavy than nymphs; Edwards and Stevens--mostly M. bivittatus (nymphs only) at 1 site each; Greeley and Hamilton--M. sanguinipes adults light in and along wheat fields, unspecified nymphs heavy on weeds along margins in spots. Seward--damage heavy to wheat heads [milky] only in 1 field, small percentage of kernels eaten along edge of fields, M. sanguinipes averaged 25 per 0.8 sq m (sq yd), leaf feeding noted, some wheat fields treated. Grasshoppers in maturing wheat may move to field borders as wheat continues to mature but many could remain in weedy fields. (Bell et al.).

NORTH DAKOTA - Billings, Golden Valley, and McKenzie Counties--grasshoppers, mostly Ageneotettix deorum and Aulocara elliotti 1st and 2nd instars up to 2 per 0.8 sq m (sq yd) of rangeland. (Winks).

GYPSY MOTH (Lymantria dispar) - PENNSYLVANIA - State and Federal control program completed June 14 with about 54,700 ha (135,000 acres) in 24 counties sprayed. (Slippey, Simons).

JAPANESE BEETLE (Popillia japonica) - SOUTH CAROLINA - Richland, Lexington, and Pickens Counties--first of season. Light to heavy on roses and crabapple. (Jones et al.).

PINK BOLLWORM (Pectinophora gossypiella) - ARIZONA - Infestations in cotton blooms by county: Pinal--up to 6%, Maricopa--up to 4%, and Yuma--few. (Berens et al.).

RANGE CATERPILLAR (Hemileuca oliviae) - OKLAHOMA - Cimarron County--mostly 3rd instars economic, 2 or more larvae per 0.8 sq m (sq yd) in 32 sections in southwestern area, up to 18 per 0.8 sq m in 1 area; lighter in additional 148 sections in western one-half; negative on 165 sections. (Arnold).

## CORRECTIONS

CPPR 3(23):254 - Delete BEET ARMYWORM note. (Wall).

## HAWAII PEST REPORT

General Vegetables - Infestations by LEAFMINER FLIES (*Liriomyza* spp.) moderate to heavy on 0.30 ha (0.75 acre) of cucumber at Waikane, Oahu. (L. Nakahara).

Fruits and Nuts - New island record. A NYMPHALID BUTTERFLY (*Agraulis vanillae vanillae*) larvae (2 specimens) collected from *Passiflora foetida* at Poipu, Kauai, June 1, 1978. Collected by D. Sugawa. Determined by S. Higa. Adults also noted in area. (Sugawa). Heavy COCONUT LEAFROLLER (*Hedylepta blackburni*) infestations past few months with burning from strong May winds, caused heavy foliar damage (50-75% of leaves affected) to exposed coconut trees on windward side of Oahu from Sunset Beach to Punaluu and from Kaaawa to Kualoa. Coconut trees in protected bay areas unaffected for most part. (Watanabe, L. Nakahara).

Beneficial Insects - New host record for State. Many adults of a PTEROMALID WASP (*Zatropis tortricidis*) recently reared from *Keiferia lycopersicella* (tomato pinworm) collected on tomato plants at Anahola, Kauai, on February 14, 1978, by D. Melendez. Determined by S. Higa. Total of 231 adults (averaged 2.2% parasitism) reared from tomato pinworm collected from February to April (6 collections) at Anahola. (Higa et al.).

Miscellaneous - New island records. Larvae of a NOCTUID MOTH (*Pandesma anysa*) collected from *Pithecellobium dulce* at Hanapepe, Kauai, May 24, 1978, by D. Sugawa and L. Nakahara; 1 adult collected from fruit fly trap at Keomuku, Lanai, October 12, 1977, by P. Conant. Both determined by S. Higa. (Sugawa, L. Nakahara).

### DETECTION

#### NEW WESTERN HEMISPHERE RECORD

##### INSECTS

A COCKROACH (*Blatta lateralis* (Walker)) - CALIFORNIA - San Joaquin. (p. 295).

##### WEEDS

A WEED (*Parentucellia latifolia* (L.) Caruel) - CALIFORNIA - Marin. (p. 290).

#### NEW STATE RECORDS

##### DISEASES

TAURICA POWDERY MILDEW (*Leveillula (Oidiopsis) taurica*) - CALIFORNIA - Imperial. (p. 293).

##### INSECTS

BLUE ALFALFA APHID (*Acyrtosiphon kondoi*) - TEXAS - Hudspeth. (p. 291).

AN ICHNEUMONID WASP (*Lemophagus curtus*) - KENTUCKY - Fayette. (p. 295).

## NEW COUNTY AND ISLAND RECORDS

### INSECTS

- BLUE ALFALFA APHID (Acyrtosiphon kondoi) - TEXAS - Reeves. (p. 291).
- A DIASPIDID SCALE (Velataspis dentata) - FLORIDA - Osceola. (p. 294).
- A EULOPHID WASP (Tetrastichus julis) - KENTUCKY - Fayette. (p. 295).
- AN ICHNEUMONID WASP (Lemophagus curtus) - WEST VIRGINIA - Grant. (p. 295).
- LONE STAR TICK (Amblyomma americanum) - KENTUCKY - Breckinridge. (p. 295).
- A MYMARID WASP (Anaphes flavipes) - KENTUCKY - Nicholas. (p. 295).
- A NOCTUID MOTH (Pandesma anysa) - HAWAII - Kauai and Lanai. (p. 297).
- A NYMPHALID BUTTERFLY (Agraulis vanillae vanillae) - HAWAII - Kauai. (p. 297).
- SMALLER EUROPEAN ELM BARK BEETLE (Scolytus multistriatus) - NORTH DAKOTA - Emmons and Ransom. (p. 294).
- A SOFT SCALE (Pulvinaria urbicola) - FLORIDA - Indian River. (p. 294).
- A WEEVIL (Sibinia sulcatula) - TEXAS - Tom Green County--collected in boll weevil pheromone traps at Van Court by G.T. Bohmfalk, early June 1978. Determined by H.R. Burke. (Jackman).
- WESTERN CORN ROOTWORM (Diabrotica virgifera) - TEXAS - Tom Green. (p. 293).

LIGHT TRAP COLLECTIONS

[illegible]

# Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff  
Plant Protection and Quarantine Programs, USDA

	<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Destination</u>
<u>Cyclocephala</u> sp. a scarab Det. R.D. Gordon	adult	in holds of military aircraft	Panama	Fayetteville	NC
<u>Copitarsia</u> sp. a noctuid moth Det. E. Felt	larval	with Chrysanthemums from cargo	Colombia	San Juan	PR
<u>Diaprepes abbreviatus</u> (Linnaeus) West Indian sugarcane root borer Det. E. Felt	adult	with croton plants from baggage	Puerto Rico	San Juan	GA
<u>Diplotaxis</u> sp. a scarab Det. R.D. Gordon	adult	with fern plants from cargo	Costa Rica	Miami	FL
<u>Evergestis forficalis</u> (Linnaeus) a pyralid moth Det. D.M. Weisman	larval	with cabbage from cargo	Netherlands	New York	USA
<u>Serica</u> sp. a scarab Det. R.D. Gordon	adult	in quarters and holds of military aircraft	Panama	Monroe	NC
<u>Globodera pallida</u> Stone potato cyst nematode Det. W. Friedman	cyst	soil with potatoes from baggage	Peru	Boston	MA
<u>Globodera rostochiensis</u> (Woll.) Mulvey & Stone golden nematode Det. W. Friedman	cyst	soil on used tractors	England	San Francisco	CA





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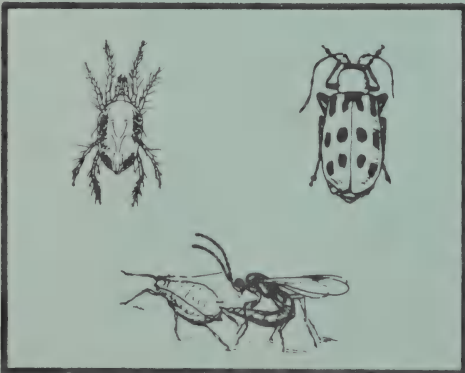


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Vol. 3 No. 26

June 30, 1978

# Cooperative PLANT PEST REPORT

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This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

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*Correspondence should be directed to:*

*CPPR*

New Pest Detection and Survey Staff  
Plant Protection and Quarantine Programs  
Animal and Plant Health Inspection Service  
U.S. Department of Agriculture  
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## COOPERATIVE PLANT PEST REPORT

### HIGHLIGHTS

#### Current Conditions

EUROPEAN CORN BORER heavy on early corn in Missouri, whorl feeding up to 100% in parts of southern Iowa, and damage heavy in Kentucky. (p. 303-304).

POTATO LEAFHOPPER 1 or more per sweep of alfalfa in parts of Kentucky, Ohio, and Wisconsin. (p. 310).

#### Detection

● A DIASPIDID SCALE in Florida is new for the United States. (p. 313).

A STINK BUG is new for Oklahoma (p. 316).

For new county records see page 316.

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## CORN, SORGHUM, SUGARCANE

### DISEASES

GRAMINICOLA ANTHRACNOSE (*Colletotrichum graminicola*) - OHIO - Prevalence/severity on corn [4-6 leaf] by county week ending June 16: Champaign--50-100% in low spots/50% of 1st leaf only; and Hancock, Hardin, Logan, Sandusky, and Seneca--little disease problem. (Hite).

HOLCUS SPOT (*Pseudomonas syringae*) - NEBRASKA - Lancaster, Clay, Adams, Kearney, Franklin, and Webster Counties--prevalence trace on corn [5 leaf] June 5-16. (Poe).

MAIZE DWARF MOSAIC POTYVIRUSES - NEBRASKA - Prevalence in corn [5-6 leaf] by county June 5-16: Kearney--5%, Franklin--5-40%, and Webster--5-10%. (Poe). INDIANA - Prevalence on corn by county June 11-17: Montgomery, Owen, Knox, Gibson, Martin, Lawrence, Morgan, and Boone--0 [4 leaf]; Greene--trace [8 leaf], Daviess, Posey, Warrick, and Spencer--0 [8 leaf]; averaged trace in 15 sites. (Schall).

### INSECTS

EUROPEAN CORN BORER (*Ostrinia nubilalis*) - NEBRASKA - Status on corn by county: Dawson--egg masses 0-30 per 100 plants in 30 fields, no hatch, adults heavy and active; Gage--fresh egg masses in 80% of 1 field, feeding signs on corn 76 cm (30 in) extended leaf height. (Raun, Miller). SOUTH DAKOTA - Southeastern area--egg masses still white in several corn fields, no larvae. (Walgenbach). NORTH DAKOTA - Status by county: Sargent--egg mass on 1 of 25 irrigated corn plants, and Bottineau--first adult of season in light trap June 6 at Bottineau. (Scholl).

MISSOURI - Statewide--European corn borer still heavy on early planted corn. Southwestern area--larvae 20-100 per 10 corn plants on 20-100% of plants in 4 fields, 70% of larvae in cornstalks, 102-112 cm (40-44 in) tall. (Munson). IOWA - Status on corn by county: Warren--whorl feeding 90%, treatments applied to 1,214 ha (3,000 acres); Fremont--whorl feeding up to 100%; Harrison--whorl feeding 25%; and Boone--egg masses averaged 4.8 per 100 plants in 10 fields on 243 ha (600 acres), whorl feeding on fewer than 2% of plants, mostly 2nd instar larvae. (Townsend).

MINNESOTA - Anoka, Lac qui Parle, Lyon, Redwood, Watonwan, and Yellow Medicine Counties--European corn borer egg masses averaged 1 per 100 field corn plants [midwhorl], shotholing 12% at Lamberton, Redwood County, and in 1 field in Watonwan County where plants 102 cm (40 in) tall. Adults still heavy in light traps indicating more egg laying and hatching potential next few periods. (Sreenivasam). WISCONSIN - Adults still active, particularly in dense grasses, weeds, oats, and peas. Earliest corn now susceptible. First instar larvae on few corn plants. (Lovett).

TENNESSEE - Middle and eastern areas--European corn borer infested 1-50% of corn fields. (Emerson et al.). KENTUCKY - Statewide--larval damage heavy on corn in most areas. Northern area--1st to 3rd instars still caused shothole damage to corn [early to midwhorl], southern area--larvae bored into leaf midrib or stalk on corn [mid to late whorl], infestations 0-100% (averaged 42%) in 41 scattered fields, 17 fields at or above economic thresholds of 50% infestations, larvae averaged 4-5 per plant in 1 field. (Sloderbeck).



NORTH CAROLINA - Piedmont and Coastal Plains area--European corn borer infested up to 60% of corn, larvae damaged tassels in Halifax and Northampton Counties, severe on 1-5% of plants in 50% of fields in Piedmont, infested up to 40% in all sections of Piedmont; and eastern mountain counties--infested 20% of plants in some counties. (Rivers et al.).

SOUTHWESTERN CORN BORER (Diatraea grandiosella) - TENNESSEE - Northwestern area--infested 1-50% of corn in fields. (Emerson et al.).

BLACK CUTWORM (Agrotis ipsilon) - NEBRASKA - Eastern one-third area--stand reduction still severe in scattered locations, losses on 20% to almost 100% of corn up to 30 cm (12 in) extended leaf height. (Roselle). IOWA - Mills, Taylor, Clarke, Scott, and Page Counties--damaged corn; larvae 1-3.8 cm (0.5-1.5 in) long in Page County. (Townsend). OHIO - Wayne County--new second generation adults in blacklight traps. (Clement, Levine). WISCONSIN - St. Croix County--loss 50% in 12-ha (30-acre) field. (Lovett).

CORN EARWORM (Heliothis zea) - OKLAHOMA - Percent infestations on corn by county: Caddo and Washita--10-15% of tassels, and McIntosh--10% of whorls. (Arnold). MISSOURI - Southwestern area--full-grown larvae, adults, and eggs on corn for beginning of generation; infested less than 1% of plants in 3 fields. (Munson). DELAWARE - Sussex County--adults averaged 20 per night in blacklight traps. (Burbutis, Kelsey).

ARMYWORM (Pseudaletia unipuncta) - WISCONSIN - Favored by ecological conditions, grassy corn and peas, and some fields of small grains lodged or with dense foliage. Adults in dense foliage heavier than indicated by light traps. (Lovett).

POTATO STEM BORER (Hydroecia micacea) - VERMONT - Northern border to Addison County--scattered variable infestations on corn. Generally infested (30% or more of seedlings) outside rows most heavily, and decreased to 5% or less in center of fields. Most infested areas have quackgrass. (MacCollom et al.).

CORN ROOTWORMS (Diabrotica spp.) - NEBRASKA - Hamilton and Dawson Counties--larval activity began, mostly 2nd instars, 1 per 2 corn plants in 3 fields in Dawson County. (Miller). IOWA - Story County--hatch about 75% completed, 1st and 2nd instar larvae present. (Townsend). MINNESOTA - First of season. Redwood County--early instar larvae on corn at Lamberton. (Sreenivasam).

SUGARCANE BEETLE (Eutheola rugiceps) - TENNESSEE - Lincoln County--damaged about 8 ha (20 acres) of corn for second time in eastern section. (Winsett).

GREENBUG (Schizaphis graminum) - INDIANA - Counts by county: Tippecanoe--this species, about 80%, and an APHID (Rhopalosiphum padi) up to 200 per wheat head in 1 field (Foster); central and east-central districts--trace to 1 colony or more per plant on wheat and particularly oats, most common on heads of wheat but still on leaves of oats (Meyer).

CHINCH BUG (Blissus leucopterus leucopterus) - MISSOURI - Southwestern area--mostly small nymphs light to moderate, 0-35 per 10 plants, in 2 of 5 sorghum fields. (Munson). NEBRASKA - Status on sorghum by county: Southeastern area--adults and 1st to 3rd instar nymphs severe where wheat stubble remained, many fields replanted; counties along southern border and into Lancaster County--heaviest infestations, migrated into corn and sorghum from maturing wheat in southern tier of counties. (Roselle et al.).

## SMALL GRAINS

### DISEASES

WHEAT LEAF RUST (*Puccinia recondita* f.sp. *tritici*) - SOUTH DAKOTA - Prevalence/severity on winter wheat [heading] by county June 5-9: Meade--1-10%/trace to 1%, Fall River--trace/trace. (Jons). NORTH DAKOTA - First of season. Adams County--prevalence trace/severity trace on winter wheat [boot] June 5-9. (Jons). NEBRASKA - Prevalence/severity on wheat [boot to heading] by county June 5-9: Red Willow, Frontier, Lincoln, and McPherson--trace/trace; development rapid on flag leaves of wheat [flowering to milky] June 12-16: Lancaster--30%/5%, Gage--15%/5% to 95%/60%, Saline--25%/5%, Jefferson--35%/5%, Pawnee--60%/trace to 5%, Otoe--10%/trace, and Johnson--10%/trace to 40%/5%. (Poe).

MISSOURI - Wheat leaf rust prevalence/severity on wheat [growth stage] by county June 6-8: Boone--trace to 1%/trace [early milky] on 3 of 45 commercial cultivars in trial plots; June 12-16: Southwestern area north to eastern area--heaviest in southwest [late dough to ripe], and central area--100%/trace to 10% [early dough to ripe]. (Foudin).

IOWA - Wheat leaf rust prevalence/severity in surveyed fields of wheat [boot to middough] by county June 3-16: Pottawattamie--80-100%/trace to 5%; and Mills, Fremont, Montgomery, and Page--60-100%/trace to 15%. (Williams). MINNESOTA - Prevalence/severity on lower leaves of wheat by county (1 field each) week ending June 16: Meeker--90%/trace [pseudostem], Stevens--60%/trace on Bart wheat [pseudostem erect] in rust monitoring plot, Swift--60%/trace on Era wheat [tillering], and Yellow Medicine--trace/trace, only 3 immature pustules. (Stromberg).

ILLINOIS - Wheat leaf rust prevalence/severity on commercial wheat [early dough unless stated otherwise] by county week of June 12: White--100%/5-20%, Alexander--100%/5-10%, Saline--100%/5% [middough], Randolph--100%/15-50% [middough], Pulaski--100%/20-25%, Crawford--100%/trace to 10%, Clark--50%/trace [late milk], Edgar--100%/trace to 1% [late milk], Wabash--100%/trace to 10%, Johnson--100%/25-50% [middough], Jackson--100%/10-25%, Massac--100%/15-25% [middough], Williamson--20-25% [late dough], Lawrence--50%/trace [late milk], Union--100%/10-15% [middough], and St. Clair--100%/5-25% [middough]. (Jordan).

INDIANA - Wheat leaf rust prevalence/severity on flag leaves of wheat [dough development unless stated otherwise] by county June 11-17: Montgomery--0/0 [milky], Clay--2%/trace, Greene--1%/trace [midmilky], Daviess and Knox--0/0, Gibson--99%/7%, Posey--50%/1%, Spencer--99%/3%, Martin--99%/1%, Lawrence--1%/trace, and Morgan--5%/trace; averaged 32%/1% in 11 sites. (Schall).

OAT CROWN RUST (*Puccinia coronata* f.sp. *avenae*) - IOWA - Wapello, Jefferson, Des Moines, Clinton, Jackson, and Jones Counties--prevalence trace to 3%/severity trace in surveyed fields of oats [early dough] June 3-16. (Williams). WISCONSIN - Sheboygan County--prevalence less than 1%/severity of 1-3 pustules per leaf in 2 oat fields. Recent rains and heavy dews favored spread and development. (Lovett).

EYESPOT (*Pyrenophora trichostoma*) - NEBRASKA - Prevalence/severity on wheat [boot to heading] by county June 5-9: Eastern, southeastern, southern, central, and southwestern areas--20-95%/10-60%; development rapid on flag leaves of wheat [flowering to milky] June 12-16: Lancaster--35%/10% to 95%/50%, Gage--25%/15% to 80%/30%, Saline--40%/10%, Jefferson--30%/15%, Pawnee--70-90%/10%, Otoe--90%/25%, and Johnson--60%/15%. (Poe).

SOUTH DAKOTA - Fall River, Custer, Meade, Butte, Harding, and Perkins Counties--eyespot prevalence 100%/severity moderate to heavy on lower leaves, light on upper leaves of winter wheat [boot to heading] June 5-9. (Jons). NORTH DAKOTA - Adams, Bowman, Slope, and Golden Valley Counties--prevalence 100%/severity moderate to heavy on lower leaves, light on upper leaves, of winter wheat [boot] June 5-9. More severe in fields with heavy wheat stubble residue. (Jons).

HELMINTHOSPORIUM LEAF BLOTCH (Pyrenophora (Helminthosporium) avenae) - IOWA - Prevalence in surveyed fields of oats [flowering] by county June 3-16: Lee--5-20%; and Monroe and Wapello--10%. (Williams).

SPOT BLOTCH (Cochliobolus (Helminthosporium) sativus) - MISSOURI - Boone County--prevalence 90-100%/severity 5-50% on barley [middough] in variety trial plots June 12-16. (Foudin).

LOOSE SMUT (Ustilago nuda) - NORTH DAKOTA - Adams County--trace in 1 winter wheat field [heading] June 5-9. (Jons). MISSOURI - Boone County--prevalence trace/severity trace on wheat [early milky] on 2 of 45 commercial cultivars June 6-8. (Foudin). ILLINOIS - Pulaski and Alexander Counties (1 field each)--prevalent on few scattered commercial wheat [early dough] plants week of June 12. (Jordan). OHIO - Seneca County--prevalence trace on wheat [beginning flowering] week ending June 16. (Hite).

LEAF AND GLUME BLOTCHES (Septoria spp.) - NEBRASKA - SPECKLED LEAF BLOTCH (S. tritici) prevalence/severity on wheat [boot to heading] by county June 5-9: Eastern, southeastern, southern, central, and southwestern areas--30-90%/15-40% on lower leaves; development rapid on flag leaves of wheat [flowering to milky] June 12-16: Lancaster--trace/trace to 40%/10%, Gage--20%/10% to 90%/50%, Saline--30%/15%, Jefferson--40%/20%, Pawnee--60%/5% to 90%/30%, Otoe--80%/10%, and Johnson--50%/15-30%. (Poe).

MISSOURI - SEPTORIA GLUME BLOTCH (Leptosphaeria (Septoria) nodorum) and S. tritici prevalence/severity on wheat: Boone County--100%/25-50% [early milky] in variety trial plots June 6-8; statewide June 12-16--100%/5-75% of leaf area, glume blotch started to appear, prevalence trace to 15%. (Foudin).

IOWA - S. tritici prevalence/severity in surveyed fields of wheat [boot to middough] by county June 3-16: Mills--50-80%/trace to 3%; and Lee, Pottawattamie, and Fremont--90%/trace to 3%. S. nodorum prevalence/severity in surveyed fields of wheat [boot to middough] by county June 3-16: Pottawattamie--40%/trace to 5%; and Mills and Fremont--40-50%/trace to 3%. (Williams).

ILLINOIS - S. tritici prevalence/severity [early dough unless stated otherwise] on commercial wheat by county week of June 12: White--100%/10-45%, Alexander--50%/5-15%, Saline--100%/5-10% [middough], Pulaski--100%/15-20%, Crawford--100%/10-30%, Clark--100%/20-40% [late milk], Edgar--100%/25-30% [late milk], Wabash--100%/5-15%, Johnson--100%/5-10% [middough], Jackson--50%/5-10%, Williamson--100%/10-15% [late dough], Lawrence--100%/10-20% [late milk], Union--100%/5-10% [middough], and St. Clair--100%/10-35% [middough]. (Jordan).

WISCONSIN - Septoria spp. prevalence on leaves by county: Dane--3% in 1 wheat field; Dane and Dodge--1-5% in several other wheat fields, most conspicuous on lower leaves. (Lovett).

INDIANA - Septoria spp. prevalence/severity on flag leaves of wheat [dough development unless stated otherwise] by county June 11-17: Montgomery--25%/1% [milky], Clay--50%/1%, Greene--99%/4% [midmilky], Daviess--99%/10%, Knox--99%/2%, Gibson--99%/2%, Posey--99%/1%, Spencer--99%/10%, Martin--99%/2%, Lawrence--99%/5%, and Morgan--99%/2%; averaged 88%/3.6% in 11 sites. (Schall).



OHIO - Septoria spp. prevalence/severity on wheat [beginning flowering] by county week ending June 16: Champaign--99%/50-99% on lower 4 leaves, Hancock--90%/99% on lower 2 leaves, Hardin--99%/99% on lower 2 leaves, Logan--99%/99% on lower 2 leaves, and Seneca--99%/50-99% on lower 3-4 leaves. (Hite).

SCAB (Fusarium spp.) - MISSOURI - Barton County north to Pettis County--prevalence trace to 5% on part to full head of commercial wheat [middough to late dough] June 12-16. (Foudin).

ILLINOIS - Scab prevalence on commercial wheat [early dough] by county week of June 12: White--5%, Alexander--5%, Saline--3% [middough], Randolph--8% [middough], Pulaski--5%, Crawford--trace, Clark--1% [late milk], Edgar--trace [late milk], Wabash--12%, Johnson--20% [middough], Jackson--20%, Massac--12% [middough], Williamson--5% [late dough], Lawrence--trace [late milk], Union--10% [middough], and St. Clair--10% [middough]. (Jordan).

INDIANA - Scab prevalence/severity on wheat heads [dough development unless stated otherwise] by county June 11-17: Montgomery--0/0 [milky], Clay and Morgan--0/0, Greene--1%/trace [midmilky], Daviess--5%/2%, Knox--1%/trace, Gibson--7%/2%, Posey--15%/6%, Spencer--3%/1%, Martin--5%/2%, and Lawrence--1%/trace; averaged 3%/1% in 11 sites. (Schall).

WHEAT POWDERY MILDEW (Erysiphe graminis f.sp. tritici) - ILLINOIS - Prevalence/severity on commercial wheat [early dough] by county week of June 12: White--100%/20%, Jackson--100%/10-15%, and Massac--100%/15-25%. (Jordan).

INDIANA - Wheat powdery mildew prevalence/severity on flag leaves of wheat [dough development unless stated otherwise] by county June 11-17: Montgomery--0/0 [milky], Clay, Gibson, Posey, Martin, and Lawrence--0/0, Greene--99%/5% [midmilky], Daviess--1%/trace, Knox--1%/trace, and Morgan--15%/1%; averaged 11%/1% in 11 sites. (Schall).

OHIO - Wheat powdery mildew prevalence/severity on wheat [beginning flowering] by county week ending June 16: Champaign--99%/10% on lower one-third of plant, Hancock--99%/trace on lower leaves, Hardin--99%/10% on lower leaves, Logan--99%/60% on most leaves and 5% on flag, Sandusky--90%/trace on lower leaves, and Seneca--99%/trace to 5% on lower leaves. (Hite).

CEPHALOSPORIUM STRIPE (Cephalosporium gramineum) - INDIANA - Prevalence/severity on flag leaves of wheat [dough development unless stated otherwise] by county June 11-17: Montgomery--1%/1% [milky], Clay--1%/1%, Greene--0/0 [midmilky], Daviess, Knox, Gibson, Posey, Spencer, Martin, Lawrence, and Morgan--0/0; averaged trace/trace in 11 sites. (Schall). OHIO - Prevalence on wheat [beginning flowering] by county week ending June 16: Hancock--1%, Hardin--10%, and Seneca--trace. (Hite).

TAKE-ALL (Gaeumannomyces graminis var. tritici) - INDIANA - Prevalence/severity on flag leaves of wheat [dough development unless stated otherwise] by county June 11-17: Montgomery--0/0 [milky], Greene--1%/1% [midmilky], Clay, Daviess, Knox, Posey, and Lawrence--0/0, Gibson--2%/1%, Spencer and Morgan--trace/trace, and Martin--1%/trace; averaged trace/trace in 11 sites. (Schall).

CORONAFACIENS HALO BLIGHT (Pseudomonas coronafaciens) - MISSOURI - Boone County--prevalence 10%/severity trace to 1% on oats [heading] in variety trial plots June 12-16. (Foudin). IOWA - Prevalence/severity in surveyed fields of oats [boot to flower] by county June 3-16: Monroe and Wapello--20%/5-10%; Butler, Grundy, and Black Hawk--80%/trace to 30%; and Delaware--5%/trace to 10%. (Williams).

WHEAT LEAF NECROSIS (*Pseudomonas syringae*) - SOUTH DAKOTA - Butte County--prevalence trace on winter wheat June 5-9. (Jons).

WHEAT STREAK MOSAIC VIRUS - NEBRASKA - Prevalence on wheat [boot to heading] by county June 5-9: Hamilton--10-80%, Hall--10%, Clay--10%, Adams--15%, Kearney--10%, Phelps--5%, Red Willow--30%, Frontier--20%, Lincoln--5%, Scotts Bluff, Banner, and Cheyenne--10-60%; Arthur--5%; Gage--10%; and Lancaster--5%. (Poe). SOUTH DAKOTA - Prevalence on winter wheat [boot to heading] by county June 5-9: Harding--trace to 10%, Perkins--trace to 5%, Butte--trace, Meade--10% in 1 field, and Custer--50% in 1 field. (Jons).

BARLEY YELLOW DWARF LUTEOVIRUS - MISSOURI - Prevalence by area June 6-8: Boone County--trace to 3% on wheat [early milky] variety trial plots; June 12-16: Statewide--1-80% in wheat, 10-25% in most early planted winter wheat; southwestern and central areas--trace to 25% in barley [middough], up to 50% in occasional fields. (Foudin). IOWA - Jackson, Clinton, Tama, Benton, Wapello, Monroe, Mahaska, Marion, and Jones--prevalence trace to 5% in surveyed fields of oats [early boot to flowering] June 3-16. (Williams).

## INSECTS

ARMYWORM (*Pseudaletia unipuncta*) - MINNESOTA - First of season. Sibley County--larvae fewer than 1 per 0.09 sq m (sq ft) in 12-ha (30-acre) wheat field with grassy weeds, especially foxtail; lodging restricted to areas with foxtail. Adults flying in many other small grain fields. Adults increased from previous period in light traps. (Sreenivasam). TENNESSEE - Western area--adult flight still heavy. (Gordon).

HESSIAN FLY (*Mayetiola destructor*) - NORTH DAKOTA - From Hebron north to Golden Valley, Mercer County, south as far as Mott, Hettinger County, and bordered on the west by State Highway 8 (Dunn, Stark, and Hettinger Counties)--yield reduction 20-30% in early seeded Hard Red Spring wheat; and Morton County--severely damaged 70% of 1 Hard Red Spring wheat field. (Brandvik, Kopp).

## **TURF, PASTURES, RANGELAND**

## INSECTS

EASTERN LUBBER GRASSHOPPER (*Romalea microptera*) - FLORIDA - Brevard County--severely damaged about 100 ha (300 acres) of commercial hay field with Hemarthria altissima (limpograss) at Cocoa Beach. (Koehler).

## **FORAGE LEGUMES**

## DISEASES

COMMON LEAF SPOT (*Pseudopeziza medicaginis*) - IOWA - Prevalence/severity in surveyed alfalfa fields by county June 3-16: Mills, Montgomery, Fremont, Page, and Adams--80-100%/trace to 5%; Jones, Linn, Delaware, Allamakee, Winneshiek, Buchanan, and Benton--40-60%/trace to 5%. (Williams).

ALFALFA MOSAIC VIRUS - CALIFORNIA - Siskiyou County--prevalence 40% on 17 ha (41 acres) of alfalfa at Tulelake, plants died back and wilted. (Massey).

## INSECTS

ALFALFA WEEVIL (Hypera postica) - NEVADA - Averages per sweep of hay alfalfa by county: Douglas--7, Lyon--12 in Smith Valley (Dufour), White Pine--55 in Steptoe Valley, and Eureka--85 in Diamond Valley (Peters). MONTANA - Statewide--larvae moderate to heavy on seed alfalfa, averaged 10-15 per sweep. Damaged 50% of some fields, most fields treated. (Bain). NEW MEXICO - larvae per 25 sweeps of alfalfa by county: Eddy--0-5 at Malaga, 2-4 at White City, 0-30 at Loving and Otis; and Chaves--0-7 at north Roswell. (Riddle).

WISCONSIN - Alfalfa weevil damage to alfalfa by area: Southern one-third area--tip feeding up to 25% on regrowth where larvae very heavy on first growth, weevil damage as much as damage due to heavy rains and uncut alfalfa; Door to Sheboygan Counties--damaged 10% or more of regrowth in some fields, pupae and new adults in uncut alfalfa as far north as Door County indicated larvae and damage will decrease; and outside of Lake Michigan shore and southern one-third area--first economic damage in 1978 in many counties. (Lovett).

ALFALFA LOOPER (Autographa californica) - OREGON - Malheur County--larvae 1-7 per sweep of alfalfa at Treasure Valley. (Fisher). NEVADA - Pershing County--2nd instar to full-grown larvae averaged 3 per sweep of hay alfalfa on 16 ha (40 acres) at Lovelock. (Munk).

CORN EARWORM (Heliothis zea) - OKLAHOMA - Washita County--heavy, 4-5 per 0.09 sq m (sq ft), and damaged seed pods on vetch. (Arnold).

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - OREGON - New county records. Harney County--light in margins of cut alfalfa fields 26 km (16 miles) south of Fields, June 7, 1978. Collected and determined by R.L. Penrose. (Westcott). Collections of alates and nymphs on alfalfa by locality, date collected, and collector under county: Grant--31.4 km (19.5 miles) west of Mt. Vernon, June 13, 1978, R.L. Penrose; Morrow--21.1 km (13.1 miles) west of Boardman, June 15, R.L. Penrose and K.J. Goeden; Umatilla--6 km (4 miles) north of Pine City, June 15, R.L. Penrose and K.J. Goeden; Gilliam--at Mayville, June 16, R.L. Penrose; and Wheeler--2 km (1 mile) north of Fossil, June 16, R.L. Penrose. All determined by R.L. Penrose. (Penrose).

NEVADA - Blue alfalfa aphid and PEA APHID (A. pisum) per sweep of hay and/or seed alfalfa by county: Douglas--15-30 (averaged 35), Lyon--20-30 (averaged 25) at Fernley, 60-350 (averaged 150) at Mason Valley, 30-480 (averaged 300) at Smith Valley; Pershing--40-400 (averaged 160) at Lovelock and upper valley, 70-300 (averaged 200) at Lovelock and lower valley (Dufour); Eureka--averaged 45 at Diamond Valley; and White Pine--averaged 45 at Steptoe Valley (Peters). Blue alfalfa aphid percentages increased up to 50% in some fields in Pershing County, previous high about 20%. (Bechtel).

PEA APHID (Acyrtosiphon pisum) - NEW MEXICO - Counts per 25 sweeps of alfalfa by county: Southern--decreased, probably due to beneficial insects and hot weather; and Eddy--3-5 at White City and 3-10 at Malaga. (Staff, Riddle). OHIO - Increased rapidly on second growth alfalfa [20 cm (8 in) tall]. Williams County--6-8 per sweep, heaviest for season. While very heavy early in season in 1977, very few on first growth for this season. (Drees).

SPOTTED ALFALFA APHID (Therioaphis maculata) - NEVADA - Counts per sweep of alfalfa by county: Pershing--occasional to 3 per sweep in scattered hay and seed fields at Lovelock; and Churchill--1 in 64.8-ha (160-acre) hay field at Fallon. (Dufour, Munk).



POTATO LEAFHOPPER (Empoasca fabae) - KENTUCKY - Continued to increase. Counts on alfalfa by county: Fayette--adults 2.4 and nymphs 0.2 per sweep June 18, adults averaged 1.3 and nymphs 0.1 per sweep in 1 field in northern part of county where alfalfa averaged 15-20 cm (6-8 in) tall (Sloderbeck); and Todd--adults and nymphs heavy in several fields, alfalfa began to yellow (Leibee).

OHIO - Potato leafhopper reached economic thresholds. Henry and Williams Counties--1+ per sweep of alfalfa [15-20 cm tall], not as severe on recently cut alfalfa, probably similar levels statewide. (Drees). Wayne County--adults 3 per sweep in 1 field, unusually heavy for this early in season. (Flessel). WISCONSIN - Southern one-half area--adults on most alfalfa; Manitowoc County--1 per sweep. (Lovett).

ALFALFA PLANT BUG (Adelphocoris lineolatus) - WISCONSIN - Adults and nymphs of this species and TARNISHED PLANT BUG (Lygus lineolaris) heavy, 4-11 per sweep, on alfalfa. (Lovett).

TARNISHED PLANT BUG (Lygus lineolaris) - OKLAHOMA - Washita County--averaged 200 per 10 sweeps of vetch. (Arnold).

## SOYBEANS

### INSECTS

DINGY CUTWORM (Feltia ducens) - IOWA - Leaf feeding by this species and BLACK CUTWORM (Agrotis ipsilon) 80-100% in 3 soybean fields on 60.7 ha (150 acres), additional 40.5 ha (100 acres) replanted. (J.R. DeWitt).

## PEANUTS

### INSECTS

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - OKLAHOMA - Marshall County--first of season on peanuts [seedling] June 21. (Arnold).

TOBACCO THRIPS (Frankliniella fusca) - FLORIDA - Jackson County--heaviest in recent years on peanuts, 3-4 per bud or flower on April-planted peanuts and heavier on May-planted peanuts, average of 0.6 thrips per bud considered economic threshold. (Tappan).

## COTTON

### INSECTS

BOLL WEEVIL (Anthonomus grandis grandis) - OKLAHOMA - Adults (and number of pheromone traps) by county--Jackson--70 (86), Kiowa--18 (32), Harmon--6 (13), and Tillman--3 (10). (Arnold). ARKANSAS - Jefferson County--adults 3 in 10 pheromone traps June 21. Adults relatively light on cotton indicating heavy migration mortality between overwintering sites and fields. (Wall). TENNESSEE - Terminal feeding on cotton very light to date; light counts expected in early season. (Locke).

BOLLWORM (Heliothis zea) - ARIZONA - Counts on cotton by county: Yuma--eggs 1 per plant and Pinal--larvae 1 per 100 sweeps. (Pilling et al.). ARKANSAS - Drew County--unusually severe in cotton field for time of season, eggs 40 and larvae 53 per 17 row m (56 row ft), beneficial insects very light. (Wall).

CABBAGE LOOPER (Trichoplusia ni) - ARKANSAS - Southeastern area--occasional larvae in cotton field, relatively early for this pest. (Wall).

## TOBACCO

### INSECTS

TOBACCO BUDWORM (Heliothis virescens) - NORTH CAROLINA - Status on tobacco by county: Bladen--10 of 85 fields at or above threshold levels, 374 Lenoir fields and 121 ha (300 acres) in Martin and Washington Counties--none at threshold, and Coastal Plains--subsided. (Harper et al.).

TOBACCO HORNWORM (Manduca sexta) - NORTH CAROLINA - Status on tobacco by county: Bladen--5 of 87 fields at or above threshold, Lenoir--heaviest at 7.5% (averaged 2%) in 374 fields, Martin and Washington--1 of 121 ha (3 of 300 acres) at threshold. (Harper et al.).

GREEN PEACH APHID (Myzus persicae) - NORTH CAROLINA - Status on tobacco by county: Northern half of Coastal Plains--appeared very serious; Martin and Washington--80.9 of 121 ha (200 of 300 acres) at or near threshold, Lenoir--80 of 374 fields above threshold, heaviest infestations at 80% of plants; and Bladen--1 of 87 fields at threshold of 25% of plants with large colonies on 2 leaves. (Pleasants et al.).

## MISCELLANEOUS FIELD CROPS

### INSECTS

SUNFLOWER BEETLE (Zygogramma exclamationis) - NORTH DAKOTA - Counts per 25 sunflower plants by county: Cass--1st and 2nd instars 4, feeding light; and Cass, Dickey, and Barnes Counties--1. (Scholl).

TWOSPOTTED SPIDER MITE (Tetranychus urticae) - OREGON - Jefferson County--averaged about 20 per peppermint leaf in unplowed and flood-irrigated field; controls to be applied. (Cacka, Fisher).

## POTATOES, TOMATOES, PEPPERS

### INSECTS

GREEN PEACH APHID (Myzus persicae) - OREGON - Washington County--mostly winged adults 2-7 per 25 lower leaves of potatoes on red, norchip, and other round white varieties along field margins of 243 ha (600 acres) in southwestern sections. (Collins).

POTATO LEAFHOPPER (Empoasca fabae) - OHIO - Franklin County--1.6-1.8 per potato plant [25 cm (10 in) tall] in garden. (Drees). NORTH DAKOTA - Dickey County--10 per 50 sweeps of potatoes near Oakes. (Scholl).

## COLE CROPS

### INSECTS

CABBAGE LOOPER (Trichoplusia ni) - INDIANA - First adult of season. Knox County--in blacklight trap June 20. (Ross).

## GENERAL VEGETABLES

### DISEASES

ONION WHITE ROT (Sclerotium cepivorum) - CALIFORNIA - Monterey County--prevalence 1% on garlic in 6 fields on more than 61 ha (150 acres) at Chualar, Gonzales, and Spreckles. (Oliver, Ibarbia).

ONION DOWNY MILDEW (Peronospora destructor) - CALIFORNIA - Prevalence by county: Sutter--90% on Grenada onions on 2 ha (4 acres) at Yuba City; and Butte--90% in 0.4 ha (1 acre) field at Chico. (Anderson, Adams).

## DECIDUOUS FRUITS AND NUTS

### INSECTS

CODLING MOTH (Laspeyresia pomonella) - WASHINGTON - Grant and Adams Counties--adults 128 (averaged 1) per pheromone trap in Royal Slope area week ending June 19, heaviest at 4 per trap; 122 (averaged 1) per trap outside Royal Slope, heaviest at 11 per trap. (Hunter). IDAHO - Males in pheromone traps by county: Latah--12 at Moscow, June 17-20 (Portman); Twin Falls--21 at Twin Falls June 12-20; and Jerome--15 June 12-19. (Stoltz). WISCONSIN - Crawford County--5 males in pheromone trap June 7-20. (Lovett).

SAN JOSE SCALE (Quadraspidiotus perniciosus) - OKLAHOMA - Wagoner County--heavy with crawlers light on 4 of 10 apple trees in orchard. (Arnold).

PECAN NUT CASEBEARER (Acrobasis nuxvorella) - NEW MEXICO - Chaves County--counts very light but infested nuts on trees from Roswell south to county line, survey to continue. (Staff). First generation larvae began to pupate June 21, about 14 days earlier than in 1976 and 1977. (Granado).

A PYRALID MOTH (Acrobasis caryivorella) - NEW MEXICO - Chaves County--most larvae pupated in young pecan orchard infested first week of May east of Roswell; orchard treated 3 times, decreased sharply but not eradicated. (Staff).

## CITRUS

### INSECTS

DIASPIDID SCALES - FLORIDA - New county records for GLOVER SCALE (Lepidosaphes gloveri) and PURPLE SCALE (L. beckii). Martin County--adults moderate on fruits of Citrus paradisi (grapefruit) near Indiantown. Collected by L.J. Chambliss, June 6, 1978. Determined by A.B. Hamon. (Mead).

## ORNAMENTALS

### DISEASES

CHRYSANTHEMUM CARLAVIRUS B - CALIFORNIA - Los Angeles County--prevalence 5% on 3,000 chrysanthemums at Pasadena. (Mayhew).

### INSECTS

CRIBRATE WEEVIL (Otiorhynchus cribricollis) - CALIFORNIA - New county record. Alameda County--adults fed on Gerbera (Transvaal daisy) flower petals at Livermore. Collected by G.H. McNeely, June 1, 1978. Determined by W.W. Middlekauff and W.S. Moore. (Moore).

A DIASPIDID SCALE (Opuntiaspis carinata (Cockerell)) - FLORIDA - New United States record. Palm Beach County--live specimens collected from 50% of 50 Beaucarnea recurvata (ponytail) in nursery at Boynton Beach, April 7, 1978. Collected by J. Bennett. Determined by A.B. Hamon. Plants shipped in from out-of-State about 3 years ago. (Hamon). New county record. Polk County--adults severely infested ponytail in nursery at Pembroke. Collected by H.G. Schmidt, June 7. All determined by A.B. Hamon. (Mead). Known from Belize, Guatemala, and Mexico. Collected from species of Anthurium, Citrus, Nolina, Oncidium, Pedilanthus, Philodendron, Theobroma, Tillandsia, and Yucca. (S. Nakahara).

A SPITTLEBUG (Clastoptera juniperina) - NEVADA - Washoe County--nymphs averaged up to 16 per 0.3 row m (row ft) of ornamental juniper at Reno, becoming more widespread in area and increasing yearly. (Bechtel).

#### SLUGS & SNAILS

BROWN GARDEN SNAIL (Helix aspersa) - OREGON - First record of established colony in Willamette Valley. Linn County--heavy on 1-2 blocks at Albany week of June 16. (Crowell, Capizzi).

#### **FOREST AND SHADE TREES**

#### DISEASES

DUTCH ELM DISEASE (Ceratocystis ulmi) - MISSOURI - First case this year. Boone County--detected on single American elm by June 6. (Foudin).

#### INSECTS

SPRUCE BUDWORM (Choristoneura fumiferana) - NEW HAMPSHIRE - Coos County--heavy larval numbers and severe defoliation of balsam fir decreased in 9 areas at Pittsburg. At 7 sites where 2-3 years of defoliation occurred by 1977, new growth conspicuous, larvae 3 per 10 terminals, and defoliation of new growth minor. At 2 sites larvae scarce and new growth on balsam fir untouched. These sites coincided with areas of lightest adult emergence in 1977. Increased in eastern part of this county where populations light in 1977 but defoliation not significant. (Morse, J.F. Burger).

MAINE - Statewide--spruce budworm pupation from almost 100% in some southern and central areas to 50+% in other areas except for western mountains. Most will pupate by June 25. Counts this season much heavier than expected in most areas and damage severe in many stands. Reddening of infested trees evident with spruce and fir gray in some areas. Larvae in some areas so heavy and food so limited that feeding was common on hemlock, larch, and Scotch pine. Spraying completed on June 17; about 90% of area designated for treatments sprayed. (Gall).

SATIN MOTH (Leucoma salicis) - OREGON - New county record. Josephine County--larvae light on quaking aspen at Williams, May 22, 1978. Collected by J. McLoughlin. Determined by R.L. Westcott. (Westcott). NEW HAMPSHIRE - Statewide--larvae very heavy on silver willow trees in scattered localities. Southern counties--defoliated 80-90% of infested trees at Claremont, most larvae almost full grown. Western and central areas--severe defoliation confined to individual trees. (J.F. Burger).



FRUITTREE LEAFROLLER (Archips argyrospilus) - CALIFORNIA - San Bernadino County--larvae on new growth on all trees, defoliated Quercus over a 400-ha (1,000-acre) area at Lake Gregory, Lake Arrowhead area. Infested 100% of trees. Pupae and adults present by June 9. (Harper, Vial).

## MAN AND ANIMALS

### INSECTS

HORN FLY (Haematobia irritans) - MISSOURI - Central and north-central areas--increased, 3-1,000 per side. (Hall). FLORIDA - Marion County--averaged 12 per head in herd of 70 horses on farm at Ocala. (Butler).

## BENEFICIAL ORGANISMS & THEIR ENEMIES

### INSECTS

A EULOPHID WASP (Tetrastichus julis) - VIRGINIA - New county record. Amherst County--parasitism of Oulema melanopus (cereal leaf beetle) larvae 31% in barley field in ElonMagisterial District May 24, 1978. Collected by D. Varnes. Determined by V.E. Montgomery. (T.L. Burger).

### WEEDS

A COLEOPHORID MOTH (Coleophora parthenica) - CALIFORNIA - Fresno County--larvae up to 10 per plant, damage extensive to 75% of Salsola kali var. tenuifolia (Russian thistle) in Coalinga area. (Dunnegan).

## FEDERAL AND STATE PROGRAMS

### DISEASES

WHEAT STEM RUST (Puccinia graminis f.sp. tritici) - MISSOURI - Central area--prevalence 75-100%/severity trace to 2% on wheat [early dough] in 2 highly susceptible variety trial plots. (Foudin).

### INSECTS

GRASSHOPPERS - NEVADA - Humboldt County--Melanoplus sanguinipes nymphs, 2nd to 4th instars, 1-5 (averaged 3) per 0.8 sq m (sq yd) on 800+ ha (2,000+ acres) of rangeland from Oroveda to Horse Creek. (Rowe). UTAH - Infested areas: Box Elder County--4,046.9 ha (10,000 acres) in Promontory Point area; and above 2,000-m (8,000-ft) elevation in Cedar Mountain and Brian Head National Park areas, Iron County, Fish Lake, Garfield County, and Beef Basin near Moab, Grand County. (Crowe).

MONTANA - Statewide--M. sanguinipes light. Heavier nymphal averages per 0.8 sq m by county: Pondera--12-15 on winter wheat at Conrad; Rosebud--10-18 on mostly rangeland with some grain; and Dawson--10-12 on rangeland south of Glendive. All 1st to 3rd instars. (Bain). SOUTH DAKOTA - Young nymphs 10-50 per 0.8 sq m on about 4,000 ha (10,000 acres) next to Angostura Reservoir. (Walgenbach).

NORTH DAKOTA - Sargent County--2nd instars to adults of grasshoppers up to per sqm (50 per sq yd) damaged newly seeded alfalfa next to crested wheatgrass on rangeland, mostly Melanoplus confusus, M. bivittatus, and M. packardii,

controls applied on 40.5 ha (100 acres). Slope County--up to 36 per sq m (30 per sq yd) in field margins of selected sites, started to move into wheat fields, mostly M. bivittatus 2nd and 3rd instars, M. bivittatus infected by Entomophthora grylli (an insect fungus). (Brandvik, Scholl).

GYPSY MOTH (Lymantria dispar) - NEW HAMPSHIRE - Merrimack County--current defoliation conspicuous throughout infested area at Canterbury. Larvae mostly 5th instar by June 17 and moved from stripped poplar and oak to less favored pine and red maple. Wilt disease in larvae week of June 12. Infestations spread primarily south and slightly north and encompassed about 200 ha (500 acres), half of that severely defoliated. (J.F. Burger).

JAPANESE BEETLE (Popillia japonica) - KENTUCKY - New county record for Franklin County--adult in corn field near Frankfort on June 22, 1978. Collected and determined by W. Gregory. Madison County--first adult of season. (Gregory). WEST VIRGINIA - First adults of season. Kanawha County--fed on roses June 16. (Hacker).

MORMON CRICKET (Anabrus simplex) - UTAH - Washington County--202 ha (500 acres) of rangeland treated south of Enterprise. (Crowe).

PINK BOLLWORM (Pectinophora gossypiella) - ARIZONA - Counts on cotton by county: Pinal--infested 4-10% of blooms, Maricopa--infested up to 1-4% of bolls, Yuma--few in blooms and bolls, Maricopa--adults 14-25 per pheromone trap per 72 hours, and Yuma--adults 34 per pheromone trap per day. (Pilling et al.).

RANGE CATERPILLAR (Hemileuca oliviae) - NEW MEXICO - Lincoln County--larvae averaged 20 per 0.8 sq m (sq yd) in several sections south of area treated in 1977. (Perry).

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#### HAWAII PEST REPORT

General Vegetables - TOMATO PINWORM (Keiferia lycopersicella) severe on 0.4 ha (1 acre) of tomato at Mikilua, Oahu. Severely stunted about 20% of tomatoes [30 cm (12 in) tall] 30 days after transplanting in 0.2-ha (0.5-acre) planting. About 25% of recently harvested fruits from another 0.2 ha discarded due to pinworm damage. Infestations by LEAFMINER FLIES (Liriomyza spp.) heavy on 0.6 ha (1.5 acres) of watermelon and 2 ha (4 acres) of tomato at Kihei, Maui. (Lai et al.). CARMINE SPIDER MITE (Tetranychus cinnabarinus) heavy on 0.2 ha of recently harvested sweet corn at Mikilua. Large numbers of Phytoseiulus macropilus (a phytoseiid mite) heavy. CORN DELPHACID (Peregrinus maidis) heavy on 0.2 ha of untreated corn at Mikilua and Waianae Valley. IMPORTED CABBAGEWORM (Pieris rapae) damage heavy to outer leaves of 185.8 sq m (2,000 sq ft) of head cabbage in untreated community garden at Mikilua in spite of 50+% parasitism by Apanteles glomeratus (a braconid wasp). BROAD MITE (Polyphagotarsonemus latus) infestations and damage heavy on chili pepper and yardlong beans in community garden at Pearl City, Oahu. PEPPER WEEVIL (Anthonomus eugenii) heavy on above chili peppers. (Nagamine, L. Nakahara).

Beneficial Insects - Immatures and adults of a CHAMAEMYIID FLY (Leucopis obscura) heavy amid infestations of EURASIAN PINE ADELGID (Pineus pini) on 100+ pine trees at Polipoli (Kula Forest Reserve), Maui. Predation excellent. Trees previously heavily infested with P. pini now lightly infested. Damaged trees recovering with new growth. (Lai, Miyahira).



## DETECTION

### NEW UNITED STATES RECORD

#### INSECTS

A DIASPIDID SCALE (Opuntiaspis carinata (Cockerell)) - FLORIDA - Palm Beach County. (p. 313).

### NEW STATE RECORD

#### INSECTS

A STINK BUG (Podisus placidus) - OKLAHOMA - Payne County--1 specimen on bench at Stillwater, June 17, 1978. Collected and determined by D.C. Arnold. (Arnold).

### NEW COUNTY RECORDS

#### INSECTS

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - OREGON - Harney, Grant, Morrow, Umatilla, Gilliam, and Wheeler. (p. 309).

CRIBRATE WEEVIL (Otiorhynchus cribricollis) - CALIFORNIA - Alameda. (p. 312).

A DIASPIDID SCALE (Opuntiaspis carinata) - FLORIDA - Polk. (p. 313).

A EULOPHID WASP (Tetrastichus julis) - VIRGINIA - Amherst. (p. 314).

GLOVER SCALE (Lepidosaphes gloveri) - FLORIDA - Martin. (p. 312).

JAPANESE BEETLE (Popillia japonica) - KENTUCKY - Franklin. (p. 315).

PLUMELESS THISTLE (Carduus acanthoides) - CALIFORNIA - Colusa County--50 plants found at Stonyford, Mendocino National Forest, June 13, 1978. Collected by J. Mendenhall and W.J. Ferlatte. Determined by W.J. Ferlatte. Plants 2 m (8 ft) tall but not yet in bloom. (Hasbrouck).

PURPLE SCALE (Lepidosaphes beckii) - FLORIDA - Martin. (p. 312).

SATIN MOTH (Leucoma salicis) - OREGON - Josephine. (p. 313).

## CORRECTIONS

CPPR 2(17):170 - EUROPEAN CORN BORER - TEXAS - Bowie County (northeastern county touching Oklahoma and Arkansas) should be gray.

## LIGHT TRAP COLLECTIONS

[illegible]

## LIGHT TRAP COLLECTIONS

[illegible]

# Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff  
Plant Protection and Quarantine Programs, USDA

	Life Stage	Host	Probable Origin	Port of Entry	Destination
<u>Puccinia nakanishikii</u> Diet a rust Det. F. Pollack	uredial telial	on leaves of lemon grass from mail	Hawaii	Hilo	TX
<u>Septoria selenophomoides</u> Cash & Watson a fungus Det. E. Feliu	imperfect	on leaves of orchids	India	Puerto Rico	PR
<u>Cataenococcus guatemalensis</u> Ferris a mealybug Det. S. Nakahara	adult	on stems of orchids	Guatemala	Miami	FL
<u>Cryptorhynchus olivieri</u> Faust a weevil Det. D.R. Whitehead	adult	in mangoes from baggage	India	Boston	USA
<u>Tomicus piniperda</u> (Linnaeus) a scolytid beetle Det. R.F. Bollinger	larval adult	in wood dunnage with cargo	West Germany	Charleston	SC
<u>Monacha syriaca</u> (Ehrenberg) a helicid snail Det. D.M. Odermat	adult	with cut flowers from cargo	Israel	Kennedy Airport	USA
<u>Heterodera avenae</u> Wollenweber oat cyst nematode Det. W. Friedman	cyst	with soil on automobile	England	Kennedy Airport	CA
<u>Globodera rostochiensis</u> (Woll.) Mulvey golden nematode Det. W. Friedman	cyst	with soil on ivy plants	Italy	Kennedy Airport	NJ







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